Pell Frischmann

Land West of Ratby

Pell Frischmann Response to National Highways

109003

Pell Frischmann

Project	Land West of Ratby
Document Title or Subject	Pell Frischmann Response to National Highways
Document Reference	109003-PEF-ZZ-RP-TP-000016
Revision Reference	S2_P1
Date	03/10/2025

1 Introduction

1.1.1 Pell Frischmann (PF) has been instructed by Lagan Homes (the Client) to provide highways and transport advice to support an outline planning application (with all matters reserved apart from access) for a phased, mixed-use development in Ratby (24/00914/OUT).

1.1.2 National Highways (NH) provided comments based on the traffic models provided. NH supplied these on 20th August 2025. NH comments are presented within **Appendix A**. Previous correspondence was undertaken with NH, with NH initially responding on 3rd December 2024 and PF responding in kind by way of a Technical Note on 12th February 2025. NH provided further comments on 25th March 2025 with PF responding to these comments on the 17th April 2025.

1.1.3 The following presents additional detail, clarification and response to a number of comments raised by NH regarding the models as appropriate.

2 National Highways Comments 20.08.25

2.1 Junction 5 – Leicester Road/ Sacheverell Way

Comment 1 - Model Geometry

"*Following our independent checks, we note that modelled and actual geometries differ. For example:*

- *Leicester Road East has an approach half width of 3.7 metres whilst 7.4 metres has been entered within the model.*
- *Leicester Road West has an entry width of 8.05 metres whilst 8.9 metres has been entered within the model.*
- *Leicester Road East has an entry radius of 30.5 metres whilst 18 metres has been entered within the model.*
- *Sacheverell Way has a conflict angle of 27.7 metres whilst 43 metres has been entered within the model.*"

2.1.1 The model geometry has been updated to reflect those presented above by National Highways, Drawing **109003-PEF-ZZ-XX-DR-TP-0800_S2_P1** provided within **Appendix B** details all geometries input into the ARCADY model.

2.1.2 A summary of the geometries entered into the ARCADY model are presented below in **Table 1**.

Table 1. Geometries Entered into ARCADY Model

Arm	V – Approach Road Half Width (m)	E – Entry Width (m)	l' – Effective Flare (m)	R – Entry Radius (m)	D – Inscribed Circle Diameter (m)	PHI – Conflict Angle (deg)
Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0
Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0
Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5

Comment 2 – Model Validation

"*Please could the model validation be provided for our review*"

2.1.3 The model calibration and validation details are provided below before the model results are presented.

Comment 3 – Lane Simulation

"*Due to the split of traffic at the junction, a version with lane simulation should also be provided as a sensitivity test.*"

2.1.4 A Lane simulation model has been setup with results of this model presented within **Table 8**.

Comment 4 – Model Set up

"*Please ensure the orientation of the junction mirrors real-world conditions (as shown below). For example, Sacheverell Way should reflect the arm on the south of the roundabout.*"

2.1.5 This has been updated within the model files as requested.

Comment 5 – Traffic Flows

"*Please confirm if the traffic flows inputted were derived from LCC's furnessed flows, detailed in Appendix H of the document titled Pell Frischmann Response to Highway Comments (dated February 2025). From our independent checks, the traffic flows within the model do not align with the furnessed flows.*"

2.1.6 The traffic flows have been derived using LCCs PRTM model and furnessing the outputs, the flows provided within Appendix H of the highway's response are pre furnessed traffic flows, the furnessing calcs and the OD tab data entered into the model are provided within A**ppendix C**.

2.2 Updated Model Calibration, Validation and Results.

Model Validation and Calibration

2.2.1 The model validation has been undertaken to the queue data undertaken at the same time as the traffic surveys. The raw queue data for the modelled peak hours is presented below in **Table 2** for reference.

Table 2. Raw Queue Data (Leicester Road/ Sacheverell Way)

Time Period	Leicester Road (East)		Sacheverell Way		Leicester Road (West)		
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3
AM Peak							
0745 – 0750	4	0	1	3	0	1	0
0750 – 0755	1	1	0	4	0	3	0
0755 – 0800	0	0	0	4	0	3	0
0800 – 0805	1	0	0	2	0	2	1
0805 – 0810	0	1	0	3	0	1	1
0810 – 0815	0	2	0	3	0	2	1
0815 – 0820	0	0	1	5	0	2	2
0820 – 0825	1	2	0	3	0	3	1
0825 – 0830	3	0	0	3	0	1	1
0830 – 0835	1	0	1	4	0	1	1
0835 – 0840	0	0	1	4	0	1	0

Time Period	Leicester Road (East)		Sacheverell Way		Leicester Road (West)		
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3
0840 – 0845	3	1	0	3	0	2	1
PM Peak							
1630 – 1635	1	0	1	3	0	1	1
1635 – 1640	0	0	1	3	0	2	1
1640 – 1645	2	1	0	2	0	2	2
1645 – 1650	0	0	1	3	0	1	1
1650 – 1655	0	0	1	3	0	1	0
1655 – 1700	2	2	1	3	0	2	1
1700 – 1705	2	3	1	3	0	0	0
1705 – 1710	1	0	1	5	0	1	0
1710 – 1715	2	0	1	3	0	2	1
1715 – 1720	0	1	0	3	0	2	1
1720 – 1725	0	0	1	4	0	1	1
1725 - 1730	0	0	2	4	0	1	2

Lane 1 is the Nearside Lane

2.2.2 The model queues should align with the highest of the 15-minute average queues observed on each arm. **Table 3** presents the 15-minute average queues observed on each arm, with the AM period of 0815 – 0830 and PM period of 1700 – 1715 being selected as the validation points.

Table 3. 15 Minute Average Queue Data (Leicester Road/ Sacheverell Way)

Time Period	Leicester Road (East)		Sacheverell Way		Leicester Road (West)		
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3
AM Peak							
0745 – 0800	2	0	0	4	0	2	0
0800 – 0815	0	1	0	3	0	2	1
0815 – 0830	1	1	0	4	0	2	1
0830 – 0845	1	0	1	4	0	1	1
PM Peak							
1630 – 1645	1	0	1	3	0	2	1
1645 – 1700	1	1	1	3	0	1	1
1700 – 1715	2	1	1	4	0	1	0
1715 - 1730	0	0	1	4	0	1	1

Lane 1 is the Nearside Lane

2.2.3 The initial base model showed very limited queuing within the model; therefore, calibration was undertaken utilising 'direct' intercept adjustments, to ensure that the model queues align with the highest of the 15-minute average queues observed on each arm, as necessary the AM and PM have been calibrated separately by splitting the model to AM and PM. The direct intercept adjustments entered into the model are presented within **Table 4**.

Table 4. Direct Intercept Capacity Adjustments

Arm	Base Slope	Base Calculated Capacity Intercept	AM Adjustment (PCU/ Hr)	PM Adjustment (PCU/ Hr)
Leicester Road (West)	0.745	2189	-1310	-1350
Leicester Road (East)	0.742	2096	-1050	-650
Sacheverell Way	0.705	1999	-1125	-1100

2.2.4

2.2.5 To check that the model is a good representation of the junction, a queue comparison has been undertaken for the peak hours, and the results are summarised in **Table 5**. The queues for each lane and per arm have been added together to gain the total queue on each arm.

Table 5. Queue Length Comparison (Leicester Road/ Sacheverell Way)

Morning and evening peak hour queue calibration results				
Scenario		**Leicester Road (East)**	**Sacheverell Way**	**Leicester Road (West)**
Morning Peak Hour	Ob	2	4	3
	Mo	2	4	2
	Diff	0	0	-1
Evening Peak Hour	Ob	3	5	1
	Mo	3	4	1
	Diff	0	-1	0

Ob = Observed Queues, Mo = Modelled Queues, Diff – Difference

2.2.6 Overall using the calibration of the model using direct intercept adjustments demonstrates the model presents an accurate representation of the traffic conditions experienced at the junction.

Results

2.2.7 A model of the Leicester Road/ Sacheverell Way roundabout was created using Junctions 9 ARCADY software. **Table 6** summarises the operation of the junction. The modelling Outputs are included in **Appendix D**.

Table 6. A426/Leicester Road Roundabout Capacity Assessment

Arm / Movement	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Base (Initial Base Model based solely on Geometry)						
Leicester Road (West)	0	2	0.18	0	2	0.13
Leicester Road (East)	1	3	0.32	1	4	0.50
Sacheverell Way	0	3	0.29	0	3	0.27
2024 Base (Calibrated and Validated)						
Leicester Road (West)	2	20	0.64	1	12	0.45
Leicester Road (East)	2	11	0.66	3	10	0.73
Sacheverell Way	4	25	0.79	4	32	0.80
2028 Furnessed Future						
Leicester Road (West)	3	30	0.77	1	13	0.49
Leicester Road (East)	3	16	0.76	4	12	0.78
Sacheverell Way	4	31	0.82	8	66	0.92
2028 Furnessed Future + Development						
Leicester Road (West)	3	33	0.79	1	14	0.50
Leicester Road (East)	3	16	0.77	4	13	0.79
Sacheverell Way	6	38	0.8	9	69	0.93
2031 Furnessed Future						
Leicester Road (West)	6	50	0.87	1	13	0.49
Leicester Road (East)	4	19	0.80	4	14	0.82
Sacheverell Way	5	35	0.85	9	77	0.94
2031 Furnessed Future + Development						
Leicester Road (West)	11	93	0.97	1	14	0.52
Leicester Road (East)	5	22	0.83	6	18	0.85
Sacheverell Way	8	54	0.92	14	104	0.99

Results – Lane Simulation – Sensitivity Test

2.2.8 The initial Lane Simulation base model showed very limited queuing within the model; therefore, calibration was undertaken utilising 'direct' intercept adjustments, to ensure that the model queues align with the highest of the 15-minute average queues observed on each arm, as necessary the AM and PM have been calibrated separately by splitting the model to AM and PM. The direct intercept adjustments entered into the model are presented within **Table 7**.

Table 7. Direct Intercept Capacity Adjustments – Lane Simulation Model

Arm	Base Slope	Base Calculated Capacity Intercept	AM Adjustment (PCU/ Hr)	PM Adjustment (PCU/ Hr)
Leicester Road (West)	0.745	2189	-1000	-1000
Leicester Road (East)	0.742	2096	-600	-250
Sacheverell Way	0.705	1999	-550	-650

2.2.9 **Table 6** summarises the operation of the junction in Lane simulation as a sensitivity test. The modelling Outputs are included in **Appendix E**.

Table 8. A426/Leicester Road Roundabout Capacity Assessment – Lane Simulation Model

Arm / Movement	AM Peak		PM Peak	
	Queue (PCU)	Delay (s)	Queue (PCU)	Delay (s)
2024 Base (Initial Base Model based solely on Geometry)				
Leicester Road (West)	1	5	0	5
Leicester Road (East)	1	5	3	8
Sacheverell Way	2	9	1	8
2024 Base (Calibrated and Validated)				
Leicester Road (West)	2	18	1	13
Leicester Road (East)	2	10	3	11
Sacheverell Way	4	29	5	33
2028 Furnessed Future				
Leicester Road (West)	3	24	1	14
Leicester Road (East)	3	12	4	12
Sacheverell Way	6	34	6	45
2028 Furnessed Future + Development				
Leicester Road (West)	3	28	1	14
Leicester Road (East)	3	13	4	12
Sacheverell Way	7	39	8	49
2031 Furnessed Future				
Leicester Road (West)	4	30	1	13
Leicester Road (East)	3	15	5	14
Sacheverell Way	6	36	6	43
2031 Furnessed Future + Development				
Leicester Road (West)	5	37	1	13
Leicester Road (East)	4	17	5	17
Sacheverell Way	8	48	9	61

2.2.10 Overall, it is concluded that the with development scenarios will have a minimal impact on the junction when compared to both the 2028 and the 2031 future scenarios with committed development. It should also be noted that these queue impacts are based on a single-lane assessment due to limitations in ARCADY's ability to model wider/ multiple lane approaches. In reality, queuing is likely to be distributed across multiple lanes.

2.2.11 As such, no mitigation measures are required to facilitate the development proposals and the queues would not interact with the Brantings Roundabout and as such, the J9 modelling approach as a standalone model forms the most appropriate methodology.

2.3 Junction 6 – Brantings Roundabout

Comment 1 – Network Setup

"*The give-way approaches have been modelled as single lanes; however, they are two-lane approaches should be updated to reflect that. Additionally, circulating lane lengths have been set to a default of 345 metres, which isn't correct. These should be measured from the stop line back to the point where a vehicle would block an exit. Please can this be adjusted.*"

2.3.1 The give way approaches have been updated to reflect two-lane approaches, Circulating lane lengths have also been updated to the actual storage length. All updated geometries are presented within Drawing **109003-PEF-ZZ-DR-TP-0801_S2-P1** in A**ppendix B**.

"*Saturation flows have either been manually entered or calculated based on geometry. If manual values have been used, there should be a clear reason but, a calibrated model should use observed flows from traffic surveys. At the moment, the current values are creating a bottleneck. This should be reviewed accordingly. Vehicles entering an arm should have a saturation flow that's at least equal to, or ideally higher than, the downstream flow unless survey data shows otherwise.*"

2.3.2 All manually entered saturation flows from the previous submission that were input as a way of calibration have been removed and replaced with calculated saturation flows from geometry measurements, these measurements are presented on Drawing **109003-PEF-ZZ-DR-TP-0801_S2-P1** in A**ppendix B**.

"*The flow when giving way and the coefficient used don't match typical defaults, and there's no explanation for the change. This should be clarified. Cruise times between Arm 4 and from Arm 8 to Arm 9 suggest vehicles are travelling at around 60 mph, which isn't realistic for this context and needs to be corrected.*"

2.3.3 All give way values have been updated to reflect typical values of 1000 pcu/Hr for Maximum Flow while giving way and coefficients of 0.33. Cruise times between Arm 4 and from Arm 8 to Arm 9 have been updated to 48 kph.

"*Platoon dispersion has been unticked for all connectors, which is unusual. This should be explained, as it's generally only expected on short lanes.*"

2.3.4 All connectors have been updated to have Platoon dispersion ticked.

Comment 2 – Traffic Flows

"*O-D matrix calculation has not been provided and therefore we cannot check whether the flows used are suitable and match the development flows we have previously agreed.*"

2.3.5 The Traffic flows in OD form are presented within **Appendix C**.

Comment 3 – Traffic Signals

"*Signal specification has not been provided and therefore we cannot confirm whether the signal set up matches what is on site. This includes phasing & staging, intergreen, min & max green times.*"

2.3.6 The signal specification for the junction is provided within **Appendix F**.

Results

2.3.7 LinSig provides average results based on uniform traffic flows and fixed signal timings and, therefore, does not take into account the advantages afforded by a demand responsive system such as a MOVA/SCOOT control system at a junction. However, the purpose of this modelling exercise is to demonstrate the impact of the proposed development traffic on the highway network using a representative model, so that informed decisions can be made about appropriate mitigation strategies. Therefore, LinSig is an adequate tool in this instance.

2.3.8 Following the updates requested by National highways **Table 9** summarises the operation of the junction. The modelling Outputs are included in **Appendix G**.

Table 9. Brantings Roundabout Modelling Results

Arm / Movement	AM Peak			PM Peak		
	Mean Max Queue (PCU)	Av Delay (s)	Degree of Saturation	Mean Max Queue (PCU)	Av Delay (s)	Degree of Saturation
2024 Base (Initial Base Model based solely on Geometry)						
Groby Road	4	43	67.8%	7	30	68.3%
Leicester Road	4	10	73.2%	5	5	44.7%
A46 (South)	2	11	50.2%	2	11	51.1%
Markfield Road	22	38	94.0%	10	11	66.4%
A46 (North)	10	36	87.8%	10	61	90.5%
PRC	-4.5%			-0.5%		
2028 Furnessed Future						
Groby Road	5	50	76.2%	7	31	70.8%
Leicester Road	4	10	72.0%	2	6	48.9%
A46 (South)	2	13	53.1%	1	10	45.2%
Markfield Road	20	35	92.9%	11	12	71.0%
A46 (North)	11	41	91.0%	16	110	99.7%
PRC	-3.2%			-10.7%		
2028 Furnessed Future + Development						
Groby Road	5	50	76.2%	7	31	72.3%
Leicester Road	4	11	75.1%	2	6	50.4%
A46 (South)	2	13	53.3%	1	11	46.7%
Markfield Road	21	36	93.2%	11	12	71.0%
A46 (North)	11	41	91.0%	16	106	99.2%
PRC	-3.6%			-10.2%		
2031 Furnessed Future						
Groby Road	5	53	79.2%	8	33	74.7%
Leicester Road	5	12	76.2%	2	6	48.5%
A46 (South)	2	13	53.2%	1	10	43.4%
Markfield Road	21	35	93.1%	11	12	69.5%
A46 (North)	12	43	91.9%	20	135	102.2%
PRC	-3.5%			-13.5%		

Arm / Movement	AM Peak			PM Peak		
	Mean Max Queue (PCU)	Av Delay (s)	Degree of Saturation	Mean Max Queue (PCU)	Av Delay (s)	Degree of Saturation
2031 Furnessed Future + Development						
Groby Road	5	53	79.2%	9	37	80.8%
Leicester Road	8	13	81.6%	2	6	52.2%
A46 (South)	2	14	55.5%	1	11	47.0%
Markfield Road	21	37	93.6%	11	12	69.6%
A46 (North)	12	44	92.3%	19	127	101.5%
PRC	-4.0%			-12.7%		

Worst performance on each arm

2.3.9 As with all previously submitted models the results indicate that the proposed development would have a minimal impact on the Brantings Roundabout.

2.3.10 Overall, the results confirm that the development would have a minimal impact on the operation of the junction, and as such, no mitigation measures are proposed.

3 Summary

3.1.1 The results confirm that including for the calibration/validation exercise the development would still have a minimal impact on the operation of the junctions, and as such, no mitigation measures are proposed.

3.1.2 Subsequently, the development proposals are considered acceptable in highway terms.

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Report Ref.	**109003-PEF-ZZ-XX-T.TN-H-000016_S2_P1 - NH Comments.Docx**
File Path	P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Documents\Transport Planning\109003-PEF-ZZ-XX-T.TN-H-000016_S2_P1 - NH Comments.docx

Rev	Suit	Description	Date	Originator	Checker	Approver
P1	S2	Initial Draft	03.10.2025	J. Farrell	L.Thomas	L.Thomas

Ref. reference. Rev revision. Suit suitability.

Appendix A National Highways Comments 20.08.25

Lewis Thomas

Subject: FW: 24/00914/OUT Recreation Ground, Burroughs Road, Ratby

From: Adrian Chadha <adrian.chadha@nationalhighways.co.uk>
Sent: 20 August 2025 09:56
To: Lewis Thomas <LThomas@pellfrischmann.com>
Cc: Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>; Ijas Muhammed <ijas.muhammed@nationalhighways.co.uk>
Subject: RE: 24/00914/OUT Recreation Ground, Burroughs Road, Ratby

Dear Lewis,

Thank you for sharing the LinSig and Junctions 9 models for our review in connection with planning application reference 24/00914/OUT comprising a community hub, 1 FE primary school and 470 dwellings, with the option for 20 of the dwellings to be converted into a care home.

Based on our review, we have set out our comments below for your consideration.

Junction 5 Base Model (Junctions 9)

Model Geometry
Following our independent checks, we note that modelled and actual geometries differ. For example:

- Leicester Road East has an approach half width of 3.7 metres whilst 7.4 metres has been entered within the model.
- Leicester Road West has an entry width of 8.05 metres whilst 8.9 metres has been entered within the model.
- Leicester Road East has an entry radius of 30.5 metres whilst 18 metres has been entered within the model.
- Sacheverell Way has a conflict angle of 27.7 metres whilst 43 metres has been entered within the model.

Therefore, we recommend that the model geometries are checked and updated, according to Junctions 9 guidance. Additionally, please could a drawing showing the measurements be provided.

Model Validation
Please could the model validation be provided for our review.

Lane Simulation
Due to the split of traffic at the junction, a version with lane simulation should also be provided as a sensitivity test.

Model Set-up

Please ensure the orientation of the junction mirrors real-world conditions (as shown below). For example, Sacheverell Way should reflect the arm on the south of the roundabout.



Traffic Flows

Please confirm if the traffic flows inputted were derived from LCC's furnessed flows, detailed in Appendix H of the document titled Pell Frischmann Response to Highway Comments (dated February 2025). From our independent checks, the traffic flows within the model do not align with the furnessed flows.

Software Version

We recommend that for any future modelling, the latest version of all modelling software is used.

Junction 6 Calibrated Model (LinSig)

Network Setup

The give-way approaches have been modelled as single lanes; however, they are two-lane approaches should be updated to reflect that. Additionally, circulating lane lengths have been set to a default of 345 metres, which isn't correct. These should be measured from the stop line back to the point where a vehicle would block an exit. Please can this be adjusted.

Saturation flows have either been manually entered or calculated based on geometry. If manual values have been used, there should be a clear reason but, a calibrated model should use observed flows from traffic surveys. At the moment, the current values are creating a bottleneck. This should be reviewed accordingly. Vehicles entering an arm should have a saturation flow that's at least equal to, or ideally higher than, the downstream flow unless survey data shows otherwise.

The flow when giving way and the coefficient used don't match typical defaults, and there's no explanation for the change. This should be clarified. Cruise times between Arm 4 and from Arm 8 to Arm 9 suggest vehicles are travelling at around 60 mph, which isn't realistic for this context and needs to be corrected.

Platoon dispersion has been unticked for all connectors, which is unusual. This should be explained, as it's generally only expected on short lanes.

Traffic Flows
O-D matrix calculation has not been provided and therefore we cannot check whether the flows used are suitable and match the development flows we have previously agreed.

Traffic Signals
Signal specification has not been provided and therefore we cannot confirm whether the signal set up matches what is on site. This includes phasing & staging, intergreen, min & max green times.

I trust that the above comments are helpful. Should you have any queries, please do not hesitate to get in touch.

Kind regards,

Adrian Chadha
Spatial Planning Team (Midlands South & East)
Operations Directorate
National Highways | Three Snowhill | Snowhill Queensway | Birmingham | B4 6GA
www.nationalhighways.co.uk

For information about our engagement with the planning system please visit
https://nationalhighways.co.uk/media/imvluu5w/final-cre23_0370-nh-planning-guide-2023.pdf

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From: Lewis Thomas
Sent: 18 July 2025 16:16
To: Adrian Chadha
Subject: RE: 24_00914_OUT - Burroughs Road Recreation Ground, Burroughs Road, Ratby

Hi Adrian
The Technical Note submitted which your last response addresses deals with the original requests from the March comments. In terms of the LinSig model, see attached the model files relating to the TN.
Let me know if you need anything else.
Have a good weekend.
Kind Regards,
Lewis

Lewis Thomas
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From: Adrian Chadha <adrian.chadha@nationalhighways.co.uk>
Sent: 11 July 2025 09:42
To: Lewis Thomas <LThomas@pellfrischmann.com>
Subject: RE: 24_00914_OUT - Burroughs Road Recreation Ground, Burroughs Road, Ratby

Hi Lewis,

Thanks for your email.

In March we issued the attached email to Alex Jelley which sets out the information that we require. I'm not sure if you have had sight of this ?

In terms of your question re the A46 Branting's roundabout (also known as Grosby interchange), we require further details on the care home trip generation and the LinSig models used to assess it.

Kind regards,

Adrian Chadha
Spatial Planning Team (Midlands South & East)
Operations Directorate
National Highways
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www.nationalhighways.co.uk

For information about our engagement with the planning system please visit
https://nationalhighways.co.uk/media/imvluu5w/final-cre23_0370-nh-planning-guide-2023.pdf

From: Lewis Thomas <LThomas@pellfrischmann.com>
Sent: 04 July 2025 11:48
To: Adrian Chadha <adrian.chadha@nationalhighways.co.uk>
Cc: Jordan Farrell <JFarrell@pellfrischmann.com>
Subject: 24_00914_OUT - Burroughs Road Recreation Ground, Burroughs Road, Ratby

> You don't often get email from lthomas@pellfrischmann.com. Learn why this is important

Hi Adrian

I hope you are well. Following the attached response, you mention you require further details on the LinSig model used to assess A46 Branting's roundabout.

Can you confirm what you require and we can forward it over.

Please note I am on leave next week so can you keep my colleague Jordan cc'd in any response.

Many Thanks,

Lewis

Lewis Thomas
Associate Director
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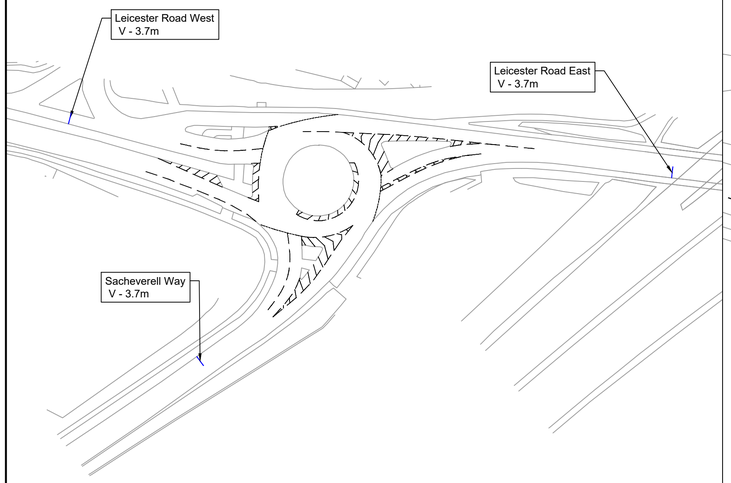
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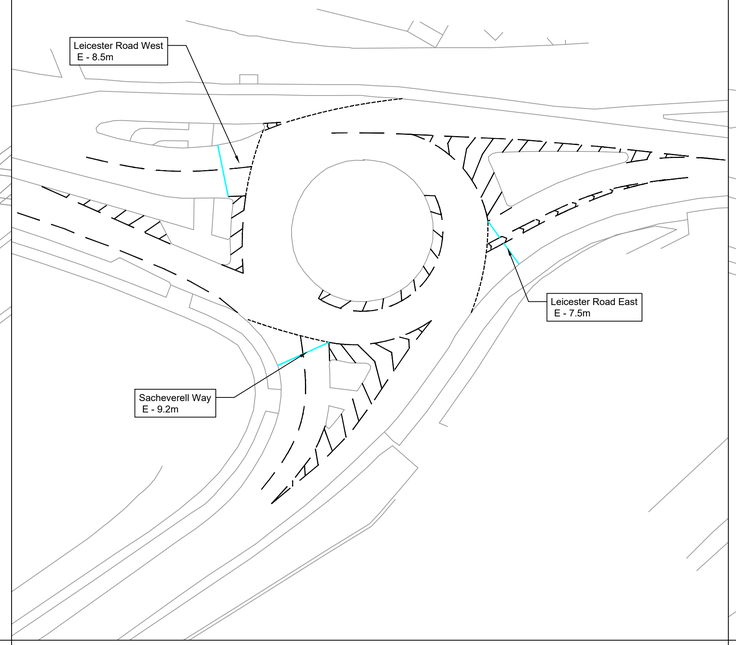
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Appendix B Junction Measurement Drawings

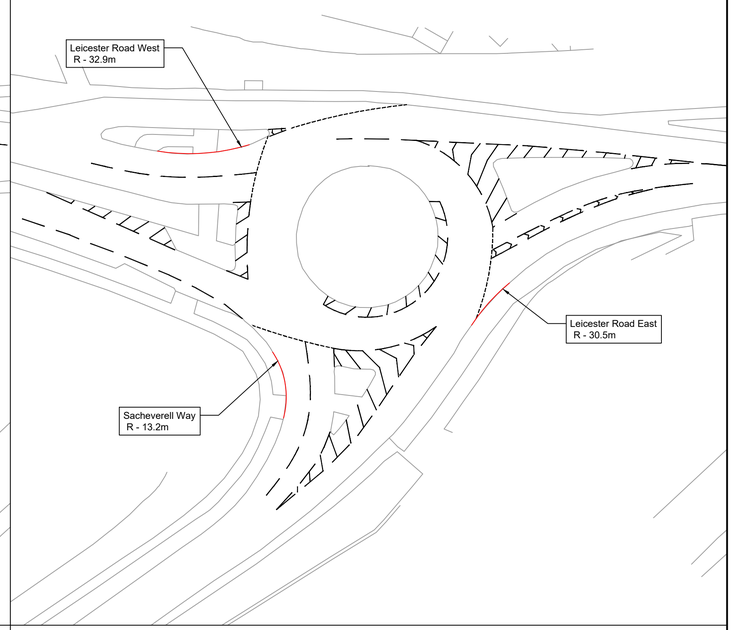
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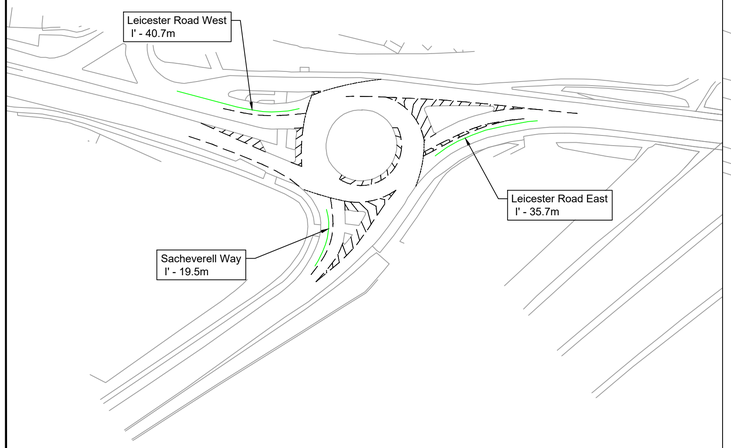
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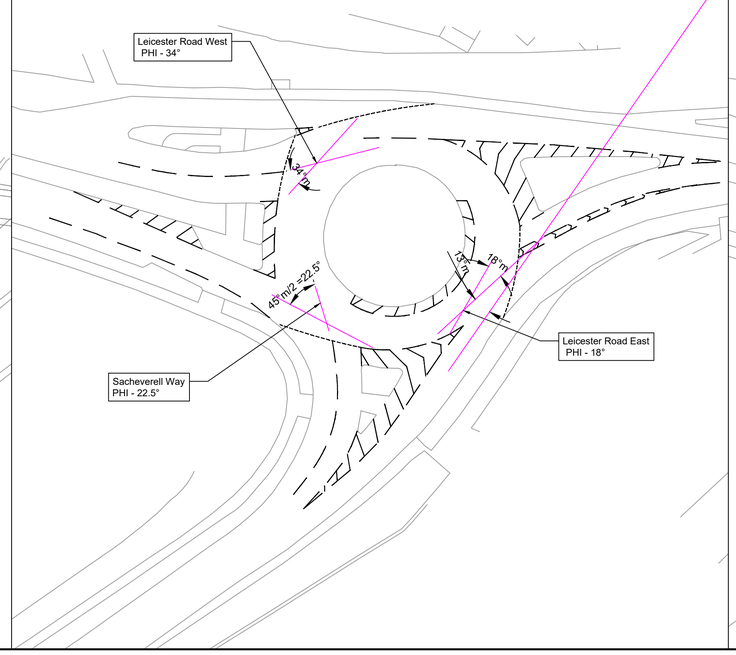
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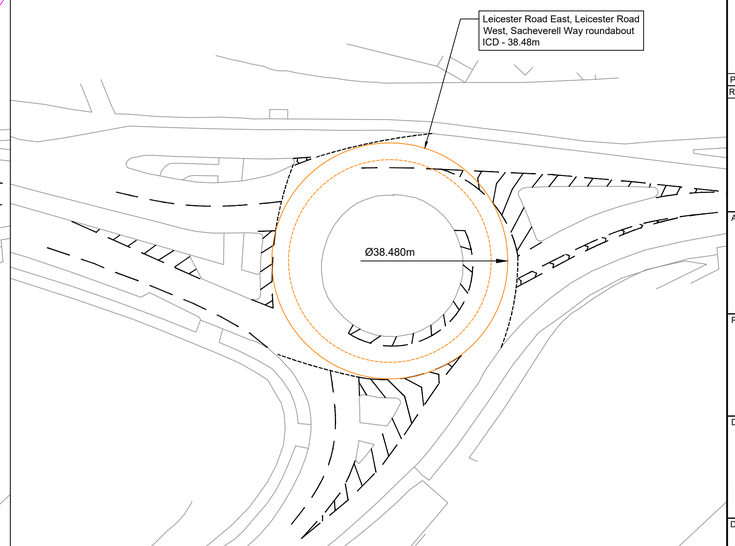
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Conflict Angle
Scale 1:500



Inscribed Circle Diameter
Scale 1:500



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Architect/Client/Contractor

LAGAN HOMES

Project

RATBY PHASE
3 AND 4

Drawing Title

LEICESTER ROAD EAST/WEST, SACHEVERELL WAY, ROUNDABOUT MEASUREMENTS

Drawing Status

FOR INFORMATION

	Name	Date
Drawn	S. PAOLI	08.09.25
Designed	S. PAOLI	08.09.25
Eng Chk	J. FARRELL	08.09.25
Approved	C. HOLLOWAY	08.09.25

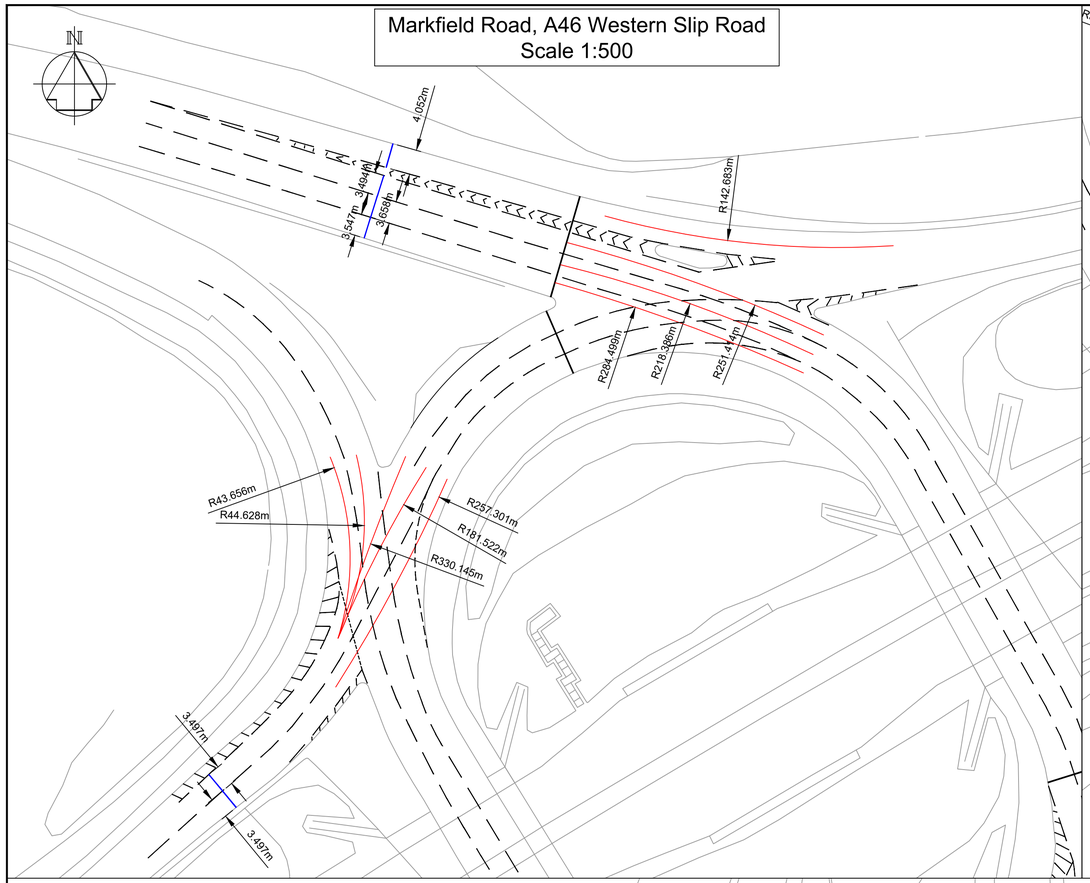
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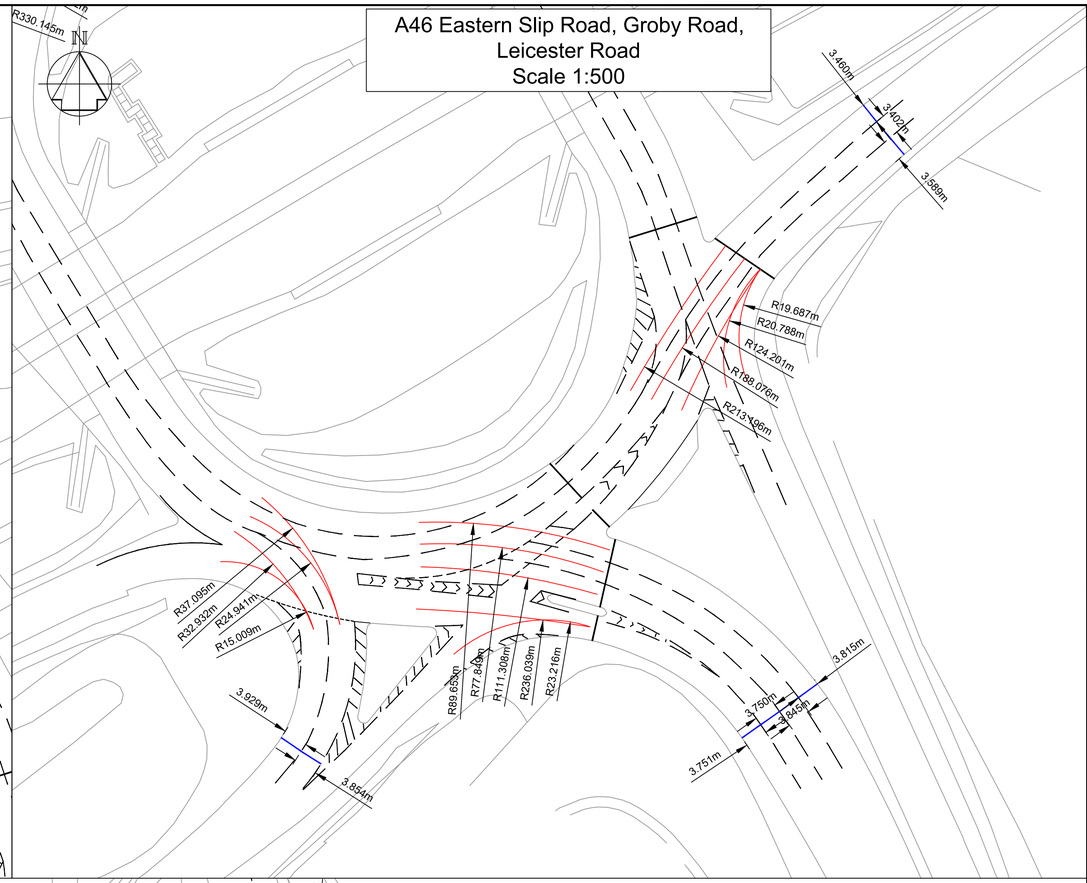
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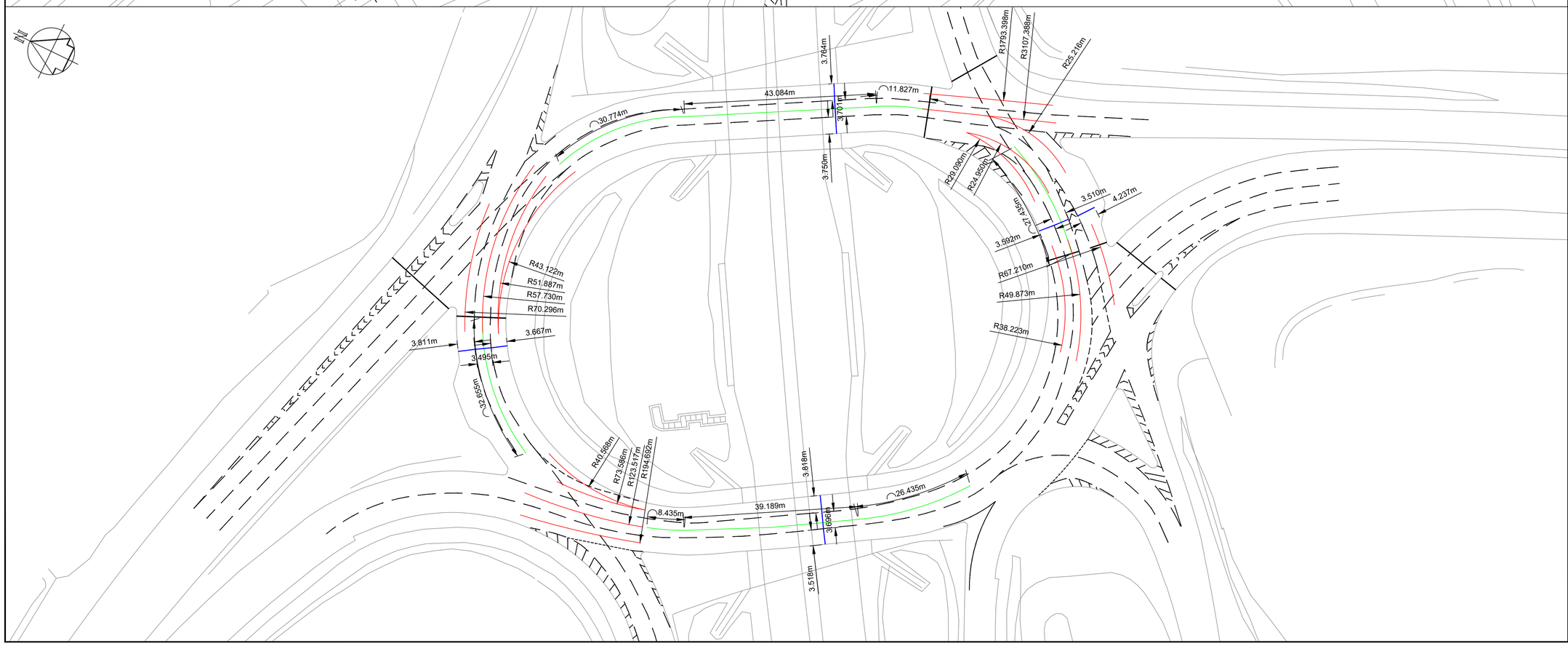
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A46 Eastern Slip Road, Groby Road, Leicester Road
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Architect/Client/Contractor

LAGAN HOMES

Project

RATBY PHASE
3 AND 4

Drawing Title

GROBY ROAD, MARKFIELD ROAD, LEICESTER WESTERN BYPASS ROUNDABOUT MEASUREMENTS

Drawing Status

FOR INFORMATION

	Name	Date
Drawn	S. PAOLI	09.09.25
Designed	S. PAOLI	09.09.25
Eng Chk	J. FARRELL	09.09.25
Approved	C. HOLLOWAY	09.09.25

Status Code: S2
Scale: 1:500
Revision: P01

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Appendix C Traffic Flows and Furnessing Calculations

DATA USED WITHIN MODEL

PRTM DATA PRE FURNESSING PROVIDED BY LCC

2024 BASE (TRAFFIC COUNTS)

AM	A	B	C	TOT
A	22	216	62	**300**
B	243	5	340	**588**
C	33	442	0	**475**
TOT	**298**	**663**	**402**	**1363**

PM	A	B	C	TOT
A	13	166	42	**221**
B	424	3	506	**933**
C	52	354	0	**406**
TOT	**489**	**523**	**548**	**1560**

PRTM 2024 Without Development

AM	A	B	C	TOT
A	0	38	10	**48**
B	209	0	501	**710**
C	66	819	0	**885**
TOT	**275**	**857**	**511**	**1643**

PM	A	B	C	TOT
A	0	34	27	**61**
B	411	0	583	**994**
C	53	662	0	**715**
TOT	**464**	**696**	**610**	**1770**

A Leicester Road W

B Leicester Road E

C Sacheverell Way

2028 FURNESSED

AM	A	B	C	TOT
A	25	250	78	**353**
B	260	5	397	**662**
C	34	451	0	**485**
TOT	**319**	**706**	**475**	**1500**

PM	A	B	C	TOT
A	16	177	47	**240**
B	470	3	520	**993**
C	62	373	0	**435**
TOT	**548**	**553**	**567**	**1668**

PRTM 2028 Without Development

AM	A	B	C	TOT
A	0	90	12	**102**
B	213	0	572	**785**
C	84	811	0	**895**
TOT	**297**	**901**	**584**	**1782**

PM	A	B	C	TOT
A	0	36	43	**79**
B	467	0	587	**1054**
C	56	688	0	**744**
TOT	**523**	**724**	**630**	**1877**

2028 FURNESSED + DEV

AM	A	B	C	TOT
A	25	249	78	**352**
B	259	5	407	**671**
C	40	468	0	**508**
TOT	**324**	**722**	**485**	**1531**

PM	A	B	C	TOT
A	16	177	50	**243**
B	470	3	529	**1002**
C	62	376	0	**438**
TOT	**548**	**556**	**579**	**1683**

PRTM 2028 With Development

AM	A	B	C	TOT
A	0	89	12	**101**
B	212	0	582	**794**
C	90	828	0	**918**
TOT	**302**	**917**	**594**	**1813**

PM	A	B	C	TOT
A	0	36	46	**82**
B	467	0	596	**1063**
C	56	691	0	**747**
TOT	**523**	**727**	**642**	**1892**

PRTM 2028 With Development - PRTM 2028 Without Development

AM	A	B	C	TOT
A	0	-1	0	**-1**
B	-1	0	10	**9**
C	6	17	0	**23**
TOT	**5**	**16**	**10**	**31**

PM	A	B	C	TOT
A	0	0	3	**3**
B	0	0	9	**9**
C	0	3	0	**3**
TOT	**0**	**3**	**12**	**15**

2031 FURNESSED

AM	A	B	C	TOT
A	27	273	90	**390**
B	257	5	426	**688**
C	34	467	0	**501**
TOT	**318**	**745**	**516**	**1579**

PM	A	B	C	TOT
A	17	175	49	**241**
B	495	3	536	**1034**
C	65	362	0	**427**
TOT	**577**	**540**	**585**	**1702**

PRTM 2031 Without Development

AM	A	B	C	TOT
A	0	124	14	**138**
B	200	0	610	**810**
C	96	815	0	**911**
TOT	**296**	**939**	**624**	**1859**

PM	A	B	C	TOT
A	0	36	45	**81**
B	491	0	604	**1095**
C	61	675	0	**736**
TOT	**552**	**711**	**649**	**1912**

2031 FURNESSED + DEV

AM	A	B	C	TOT
A	27	272	112	**411**
B	254	5	444	**703**
C	42	502	0	**544**
TOT	**323**	**779**	**556**	**1658**

PM	A	B	C	TOT
A	17	174	60	**251**
B	494	3	572	**1069**
C	65	384	0	**449**
TOT	**576**	**561**	**632**	**1769**

PRTM 2031 With Development

AM	A	B	C	TOT
A	0	123	36	**159**
B	197	0	628	**825**
C	104	850	0	**954**
TOT	**301**	**973**	**664**	**1938**

PM	A	B	C	TOT
A	0	35	56	**91**
B	490	0	640	**1130**
C	61	697	0	**758**
TOT	**551**	**732**	**696**	**1979**

PRTM 2031 With Development - PRTM 2031 Without Development

AM	A	B	C	TOT
A	0	-1	22	**21**
B	-3	0	18	**15**
C	8	35	0	**43**
TOT	**5**	**34**	**40**	**79**

PM	A	B	C	TOT
A	0	-1	11	**10**
B	-1	0	36	**35**
C	0	22	0	**22**
TOT	**-1**	**21**	**47**	**67**

Junction 5 2028 Furnessing

Observed AM

2024	A	B	C	TOT O
A	0	33	442	475
B	62	22	216	300
C	340	243	5	588
TOT D	402	298	663	

Furnessed Future

2028	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		

PRTM

2024	A	B	C	TOT O
A	0	66	819	885
B	10	0	38	48
C	501	209	0	710
TOT D	511	275	857	

2028	A	B	C	TOT O
A	0	84	811	895
B	12	0	90	102
C	572	213	0	785
TOT D	584	297	901	

A Leicester Road W
B Leicester Road E
C Sacheverell Way

Example Formula

Error Range

$$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right| < \text{defined error bound}$$

Derivation of targets - additive or multiplicative?!

Additive:

$$Target = Observed + (PRTM2031 - PRTM2021)$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
475	10	485	402	73	475
300	54	354	298	22	320
588	75	663	663	44	707

Multi:

$$Target = Observed \times \frac{PRTM2031}{PRTM2021}$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
475	1.011	480	402	1.143	459
300	2.125	638	298	1.08	322
588	1.106	650	663	1.051	697

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$$

$$Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}$$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

Additive:

	A	B	C	TOT O	Tar O
A	0	33	442	475	485
B	62	22	216	300	354
C	340	243	5	588	663
TOT D	402	298	663		
Tar D	475	320	707		
Col Fac	1.18	1.07	1.07		

Iteration 1:

	A	B	C	low Fact.
A	0	35	473	0.954
B	73	23.54	231	1.08
C	401	260	5.35	0.995

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	79	25	250	354	354
C	399	259	5	663	663
TOT D	478	318	706		
Tar D	475	320	707		
Col Fac	0.99	1.01	1		

Iteration 2:

	A	B	C	low Fact.
A	0	36	473	0.954
B	72	24	231	1.081
C	397	263	5	0.997

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	26	250	354	354
C	396	262	5	663	663
TOT D	474	322	706		
Tar D	475	320	707		
Col Fac	1	0.99	1		

Iteration 3:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 4:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 5:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 6:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 7:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 8:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Iteration 9:

	A	B	C	low Fact.
A	0	35	473	0.954
B	72	24	231	1.082
C	397	260	5	1.001

	A	B	C	TOT O	Tar O
A	0	34	451	485	485
B	78	25	250	353	354
C	397	260	5	662	663
TOT D	475	319	706		
Tar D	475	320	707		
Col Fac	1	1	1		

Observed PM

2024	A	B	C	TOT O
A	0	52	354	406
B	42	13	166	221
C	506	424	3	933
TOT D	548	489	523	

Furnessed Future

2028	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		

PRTM

2024	A	B	C	TOT O
A	0	53	662	715
B	27	0	34	61
C	583	411	0	994
TOT D	610	464	696	

2028	A	B	C	TOT O
A	0	56	688	744
B	43	0	36	79
C	587	467	0	1054
TOT D	630	523	724	

A Leicester Road W
B Leicester Road E
C Sacheverell Way

Example Formula

Error Range

$$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right| < \text{defined error bound}$$

Derivation of targets - additive or multiplicative?!

Additive:

$$Target = Observed + (PRTM2031 - PRTM2021)$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
406	29	435	548	20	568
221	18	239	489	59	548
933	60	993	523	28	551

Multi:

$$Target = Observed \times \frac{PRTM2031}{PRTM2021}$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
406	1.041	422	548	1.033	566
221	1.295	286	489	1.127	551
933	1.06	989	523	1.04	544

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$$

$$Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}$$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	TOT O	Tar O
A	0	52	354	406	435
B	42	13	166	221	239
C	506	424	3	933	993
TOT D	548	489	523		
Tar D	568	548	551		
Col Fac	1.04	1.12	1.05		

Iteration 1:

	A	B	C	low Fact.
A	0	58	372	1.012
B	44	15	174	1.028
C	526	475	3	0.989

	A	B	C	TOT O	Tar O
A	0	59	376	435	435
B	45	15	179	239	239
C	520	470	3	993	993
TOT D	565	544	558		
Tar D	568	548	551		
Col Fac	1.01	1.01	0.99		

Iteration 2:

	A	B	C	low Fact.
A	0	59	368	1.019
B	44	15	173	1.033
C	532	480	3	0.979

	A	B	C	TOT O	Tar O
A	0	60	375	435	435
B	46	15	178	239	239
C	520	470	3	993	993
TOT D	566	545	556		
Tar D	568	548	551		
Col Fac	1	1.01	0.99		

Iteration 3:

	A	B	C	low Fact.
A	0	59	364	1.027
B	44	15	171	1.04
C	532	484	3	0.974

	A	B	C	TOT O	Tar O
A	0	61	374	435	435
B	46	15	178	239	239
C	518	472	3	993	993
TOT D	564	548	555		
Tar D	568	548	551		
Col Fac	1.01	1	0.99		

Iteration 4:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Iteration 5:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Iteration 6:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Iteration 7:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Iteration 8:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Iteration 9:

	A	B	C	low Fact.
A	0	59	361	1.036
B	45	15	169	1.046
C	537	484	3	0.969

	A	B	C	TOT O	Tar O
A	0	62	373	435	435
B	47	16	177	240	239
C	520	470	3	993	993
TOT D	567	548	553		
Tar D	568	548	551		
Col Fac	1	1	1		

Junction 5 2031 Furnessing

Observed AM

2024	A	B	C	TOT O
A	0	33	442	475
B	62	22	216	300
C	340	243	5	588
TOT D	402	298	663	

Furnessed Future

2031	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		

PRTM

2024	A	B	C	TOT O
A	0	66	819	885
B	10	0	38	48
C	501	209	0	710
TOT D	511	275	857	

2031	A	B	C	TOT O
A	0	96	815	911
B	14	0	124	138
C	610	200	0	810
TOT D	624	296	939	

A Leicester Road W
B Leicester Road E
C Sacheverell Way

Example Formula

Error Range

$$\left|\frac{Sum\ of\ Furnessed\ destinations - target\ destinations}{target\ destinations}\right| < \text{defined error bound}$$

Derivation of targets - additive or multiplicative?!

Additive:

$$Target = Observed + (PRTM2031 - PRTM2021)$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
475	26	501	402	113	515
300	90	390	298	21	319
588	100	688	663	82	745

Multi:

$$Target = Observed \times \frac{PRTM2031}{PRTM2021}$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
475	1.029	489	402	1.221	491
300	2.875	863	298	1.076	321
588	1.141	671	663	1.096	726

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$$

$$Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}$$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

Additive:

	A	B	C	TOT O	Tar O
A	0	33	442	475	501
B	62	22	216	300	390
C	340	243	5	588	688
TOT D	402	298	663		
Tar D	515	319	745		
Col Fac	1.28	1.07	1.12		

Iteration 1:

	A	B	C	low Fact.
A	0	35	495	0.945
B	79	23.54	242	1.131
C	435	260	5.6	0.982

	A	B	C	TOT O	Tar O
A	0	33	468	501	501
B	90	27	274	391	390
C	427	255	5	687	688
TOT D	517	315	747		
Tar D	515	319	745		
Col Fac	1	1.01	1		

Iteration 2:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 3:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 4:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 5:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 6:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 7:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 8:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Iteration 9:

	A	B	C	low Fact.
A	0	36	495	0.944
B	79	24	242	1.13
C	435	263	6	0.978

	A	B	C	TOT O	Tar O
A	0	34	467	501	501
B	90	27	273	390	390
C	426	257	5	688	688
TOT D	516	318	745		
Tar D	515	319	745		
Col Fac	1	1	1		

Observed PM

2024	A	B	C	TOT O
A	0	52	354	406
B	42	13	166	221
C	506	424	3	933
TOT D	548	489	523	

Furnessed Future

2031	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		

PRTM

2024	A	B	C	TOT O
A	0	53	662	715
B	27	0	34	61
C	583	411	0	994
TOT D	610	464	696	

2031	A	B	C	TOT O
A	0	61	675	736
B	45	0	36	81
C	604	491	0	1095
TOT D	649	552	711	

A Leicester Road W
B Leicester Road E
C Sacheverell Way

Example Formula

Error Range

$$\left|\frac{Sum\ of\ Furnessed\ destinations - target\ destinations}{target\ destinations}\right| < \text{defined error bound}$$

Derivation of targets - additive or multiplicative?!

Additive:

$$Target = Observed + (PRTM2031 - PRTM2021)$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
406	21	427	548	39	587
221	20	241	489	88	577
933	101	1034	523	15	538

Multi:

$$Target = Observed \times \frac{PRTM2031}{PRTM2021}$$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
406	1.029	418	548	1.064	583
221	1.328	293	489	1.19	582
933	1.102	1028	523	1.022	534

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$$

$$Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}$$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	TOT O	Tar O
A	0	52	354	406	427
B	42	13	166	221	241
C	506	424	3	933	1034
TOT D	548	489	523		
Tar D	587	577	538		
Col Fac	1.07	1.18	1.03		

Iteration 1:

	A	B	C	low Fact.
A	0	61	365	1.002
B	45	15	171	1.042
C	541	500	3	0.99

	A	B	C	TOT O	Tar O
A	0	62	365	427	427
B	47	16	178	241	241
C	536	495	3	1034	1034
TOT D	583	573	546		
Tar D	587	577	538		
Col Fac	1.01	1.01	0.99		

Iteration 2:

	A	B	C	low Fact.
A	0	62	361	1.01
B	45	15	169	1.047
C	547	505	3	0.98

	A	B	C	TOT O	Tar O
A	0	63	364	427	427
B	48	16	177	241	241
C	536	495	3	1034	1034
TOT D	584	574	544		
Tar D	587	577	538		
Col Fac	1.01	1.01	0.99		

Iteration 3:

	A	B	C	low Fact.
A	0	63	357	1.017
B	46	16	168	1.052
C	552	510	3	0.97

	A	B	C	TOT O	Tar O
A	0	64	363	427	427
B	48	16	176	240	241
C	536	495	3	1034	1034
TOT D	584	575	542		
Tar D	587	577	538		
Col Fac	1.01	1	0.99		

Iteration 4:

	A	B	C	low Fact.
A	0	63	354	1.025
B	46	16	166	1.058
C	558	510	3	0.965

	A	B	C	TOT O	Tar O
A	0	64	363	427	427
B	49	17	175	241	241
C	538	493	3	1034	1034
TOT D	587	574	541		
Tar D	587	577	538		
Col Fac	1	1.01	0.99		

Iteration 5:

	A	B	C	low Fact.
A	0	63	350	1.033
B	46	16	164	1.065
C	558	515	3	0.961

	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		
Col Fac	1	1	1		

Iteration 6:

	A	B	C	low Fact.
A	0	63	350	1.033
B	46	16	164	1.065
C	558	515	3	0.961

	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		
Col Fac	1	1	1		

Iteration 7:

	A	B	C	low Fact.
A	0	63	350	1.033
B	46	16	164	1.065
C	558	515	3	0.961

	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		
Col Fac	1	1	1		

Iteration 8:

	A	B	C	low Fact.
A	0	63	350	1.033
B	46	16	164	1.065
C	558	515	3	0.961

	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		
Col Fac	1	1	1		

Iteration 9:

	A	B	C	low Fact.
A	0	63	350	1.033
B	46	16	164	1.065
C	558	515	3	0.961

	A	B	C	TOT O	Tar O
A	0	65	362	427	427
B	49	17	175	241	241
C	536	495	3	1034	1034
TOT D	585	577	540		
Tar D	587	577	538		
Col Fac	1	1	1		

DATA USED WITHIN MODEL

PRTM DATA PRE FURNESSING PROVIDED BY LCC

2024 BASE (TRAFFIC COUNTS)

AM	A	B	C	D	E	TOT
A	0	104	95	316	213	**728**
B	197	0	121	228	174	**720**
C	202	27	0	143	3	**375**
D	1200	148	223	0	947	**2518**
E	60	171	1	805	0	**1037**
TOT	**1659**	**450**	**440**	**1492**	**1337**	**5378**

PM	A	B	C	D	E	TOT
A	0	224	160	655	223	**1262**
B	162	0	77	217	79	**535**
C	133	54	0	162	0	**349**
D	557	189	146	0	834	**1726**
E	40	328	2	787	0	**1157**
TOT	**892**	**795**	**385**	**1821**	**1136**	**5029**

PRTM 2024 Without Development

AM	A	B	C	D	E	TOT
A	0	0	53	662	3	**718**
B	124	0	165	14	637	**940**
C	169	57	0	161	0	**387**
D	1389	38	233	0	850	**2510**
E	10	358	0	760	0	**1128**
TOT	**1692**	**453**	**451**	**1597**	**1490**	**5683**

PM	A	B	C	D	E	TOT
A	0	0	82	1079	2	**1163**
B	117	0	129	9	468	**723**
C	91	61	0	171	0	**323**
D	1009	41	174	0	715	**1939**
E	0	420	0	611	0	**1031**
TOT	**1217**	**522**	**385**	**1870**	**1185**	**5179**

A	Groby Road
B	Leicester Road
C	A46 S
D	Markfield
E	A46 N

2028 FURNESSED

AM	A	B	C	D	E	TOT
A	0	120	99	371	214	**804**
B	202	0	124	262	172	**760**
C	198	29	0	157	3	**387**
D	1263	171	235	0	959	**2628**
E	54	169	1	813	0	**1037**
TOT	**1717**	**489**	**459**	**1603**	**1348**	**5616**

PM	A	B	C	D	E	TOT
A	0	222	178	629	241	**1270**
B	184	0	85	208	85	**562**
C	131	46	0	134	0	**311**
D	631	185	161	0	893	**1870**
E	50	354	2	825	0	**1231**
TOT	**996**	**807**	**426**	**1796**	**1219**	**5244**

PRTM 2028 Without Development

AM	A	B	C	D	E	TOT
A	0	0	60	731	3	**794**
B	109	0	208	14	649	**980**
C	188	51	0	160	0	**399**
D	1484	43	213	0	879	**2619**
E	10	409	0	837	0	**1256**
TOT	**1791**	**503**	**481**	**1742**	**1531**	**6048**

PM	A	B	C	D	E	TOT
A	0	12	122	1034	2	**1170**
B	113	0	110	9	518	**750**
C	109	56	0	120	0	**285**
D	1099	44	192	0	748	**2083**
E	3	420	0	683	0	**1106**
TOT	**1324**	**532**	**424**	**1846**	**1268**	**5394**

2028 FURNESSED + DEV

AM	A	B	C	D	E	TOT
A	0	120	99	369	214	**802**
B	201	0	123	262	191	**777**
C	198	28	0	157	3	**386**
D	1273	171	236	0	963	**2643**
E	54	173	1	813	0	**1041**
TOT	**1726**	**492**	**459**	**1601**	**1371**	**5649**

PM	A	B	C	D	E	TOT
A	0	231	177	626	241	**1275**
B	184	0	76	208	97	**565**
C	131	46	0	139	0	**316**
D	632	187	160	0	893	**1872**
E	50	352	2	824	0	**1228**
TOT	**997**	**816**	**415**	**1797**	**1231**	**5256**

PRTM 2028 With Development

AM	A	B	C	D	E	TOT
A	0	0	60	729	3	**792**
B	108	0	207	14	668	**997**
C	188	50	0	160	0	**398**
D	1494	43	214	0	883	**2634**
E	10	413	0	837	0	**1260**
TOT	**1800**	**506**	**481**	**1740**	**1554**	**6081**

PM	A	B	C	D	E	TOT
A	0	21	121	1031	2	**1175**
B	113	0	101	9	530	**753**
C	109	56	0	125	0	**290**
D	1100	46	191	0	748	**2085**
E	3	418	0	682	0	**1103**
TOT	**1325**	**541**	**413**	**1847**	**1280**	**5406**

PRTM 2028 With Development - PRTM 2028 Without Development

AM	A	B	C	D	E	TOT
A	0	0	0	-2	0	**-2**
B	-1	0	-1	0	19	**17**
C	0	-1	0	0	0	**-1**
D	10	0	1	0	4	**15**
E	0	4	0	0	0	**4**
TOT	**9**	**3**	**0**	**-2**	**23**	**33**

PM	A	B	C	D	E	TOT
A	0	9	-1	-3	0	**5**
B	0	0	-9	0	12	**3**
C	0	0	0	5	0	**5**
D	1	2	-1	0	0	**2**
E	0	-2	0	-1	0	**-3**
TOT	**1**	**9**	**-11**	**1**	**12**	**12**

2031 FURNESSED

AM	A	B	C	D	E	TOT
A	0	123	105	393	217	**838**
B	210	0	132	280	175	**797**
C	190	28	0	155	3	**376**
D	1292	175	246	0	962	**2675**
E	53	166	1	818	0	**1038**
TOT	**1745**	**492**	**484**	**1646**	**1357**	**5724**

PM	A	B	C	D	E	TOT
A	0	240	178	656	244	**1318**
B	190	0	79	199	79	**547**
C	133	45	0	127	0	**305**
D	683	194	156	0	876	**1909**
E	53	362	2	811	0	**1228**
TOT	**1059**	**841**	**415**	**1793**	**1199**	**5307**

PRTM 2031 Without Development

AM	A	B	C	D	E	TOT
A	0	0	61	764	3	**828**
B	105	0	238	14	659	**1016**
C	182	43	0	163	0	**388**
D	1523	49	210	0	885	**2667**
E	10	418	0	849	0	**1277**
TOT	**1820**	**510**	**509**	**1790**	**1547**	**6176**

PM	A	B	C	D	E	TOT
A	0	52	124	1042	2	**1220**
B	114	0	90	11	520	**735**
C	121	46	0	112	0	**279**
D	1151	45	201	0	725	**2122**
E	3	426	0	673	0	**1102**
TOT	**1389**	**569**	**415**	**1838**	**1247**	**5458**

2031 FURNESSED + DEV

AM	A	B	C	D	E	TOT
A	0	123	105	392	217	**837**
B	210	0	131	280	210	**831**
C	190	25	0	155	3	**373**
D	1311	175	249	0	967	**2702**
E	53	171	1	820	0	**1045**
TOT	**1764**	**494**	**486**	**1647**	**1397**	**5788**

PM	A	B	C	D	E	TOT
A	0	275	175	649	244	**1343**
B	188	0	78	199	103	**568**
C	133	44	0	139	0	**316**
D	687	197	154	0	877	**1915**
E	53	359	2	815	0	**1229**
TOT	**1061**	**875**	**409**	**1802**	**1224**	**5371**

PRTM 2031 With Development

AM	A	B	C	D	E	TOT
A	0	0	61	763	3	**827**
B	105	0	237	14	694	**1050**
C	182	40	0	163	0	**385**
D	1542	49	213	0	890	**2694**
E	10	423	0	851	0	**1284**
TOT	**1839**	**512**	**511**	**1791**	**1587**	**6240**

PM	A	B	C	D	E	TOT
A	0	87	121	1035	2	**1245**
B	112	0	89	11	544	**756**
C	121	45	0	124	0	**290**
D	1155	48	199	0	726	**2128**
E	3	423	0	677	0	**1103**
TOT	**1391**	**603**	**409**	**1847**	**1272**	**5522**

PRTM 2031 With Development - PRTM 2031 Without Development

AM	A	B	C	D	E	TOT
A	0	0	0	-1	0	**-1**
B	0	0	-1	0	35	**34**
C	0	-3	0	0	0	**-3**
D	19	0	3	0	5	**27**
E	0	5	0	2	0	**7**
TOT	**19**	**2**	**2**	**1**	**40**	**64**

PM	A	B	C	D	E	TOT
A	0	35	-3	-7	0	**25**
B	-2	0	-1	0	24	**21**
C	0	-1	0	12	0	**11**
D	4	3	-2	0	1	**6**
E	0	-3	0	4	0	**1**
TOT	**2**	**34**	**-6**	**9**	**25**	**64**

Junction 6 2028 Furnessing

Observed AM

2024	A	B	C	D	E	TOT O
A	0	104	95	316	213	728
B	197	0	121	228	174	720
C	202	27	0	143	3	375
D	1200	148	223	0	947	2518
E	60	171	1	805	0	1037
TOT D	1659	450	440	1492	1337	

Furnessed Future

2028	A	B	C	D	E	TOT O	Tar O
A	0	120	99	371	214	804	804
B	202	0	124	262	172	760	760
C	198	29	0	157	3	387	387
D	1263	171	235	0	959	2628	2627
E	54	169	1	813	0	1037	
TOT D	1717	489	459	1603	1348		
Tar D	1758	500	470	1637	1378		

PRTM

2024	A	B	C	D	E	TOT O
A	0	0	53	662	3	718
B	124	0	165	14	637	940
C	169	57	0	161	0	387
D	1389	38	233	0	850	2510
E	10	358	0	760	0	
TOT D	1692	453	451	1597	1490	

2028	A	B	C	D	E	TOT O
A	0	0	60	731	3	794
B	109	0	208	14	649	980
C	188	51	0	160	0	399
D	1484	43	213	0	879	2619
E	10	409	0	837	0	
TOT D	1791	503	481	1742	1531	

A	Groby Road
B	Leicester Road
C	A46 S
D	Markfield
E	A46 N

Error Range

$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right|$ < defined error bound

Derivation of targets - additive or multiplicative?!

Additive:

$Target = Observed + (PRTM2031 - PRTM2021)$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
728	76	804	1659	99	1758
720	40	760	450	50	500
375	12	387	440	30	470
2518	109	2627	1492	145	1637
1037	0	1037	1337	41	1378

Multi:

$Target = Observed \times \frac{PRTM2031}{PRTM2021}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
728	1.106	805	1659	1.059	1756
720	1.043	751	450	1.11	500
375	1.031	387	440	1.067	469
2518	1.043	2627	1492	1.091	1627
1037	0	0	1337	1.028	1374

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$

$Target\ Origin = \frac{Derived\ Origin\ Target \times T}{Sum\ of\ all\ derived\ origin\ targets}$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	D	E	TOT O	Tar O
A	0	104	95	316	213	728	804
B	197	0	121	228	174	720	760
C	202	27	0	143	3	375	387
D	1200	148	223	0	947	2518	2627
E	60	171	1	805	0	1037	1037
TOT D	1659	450	440	1492	1337		
Tar D	1758	500	470	1637	1378		
Col Fac	1.06	1.11	1.07	1.1	1.03		

Additive:

Iteration 1:

	A	B	C	D	E	low Fact.
A	0	115	102	348	219	1.025
B	208.8	0	129	251	179	0.989
C	214.1	30	0	157	3	0.957
D	1272	164	239	0	975	0.991
E	63.6	190	1	886	0	0.91

	A	B	C	D	E	TOT O	Tar O
A	0	118	104	356	225	803	804
B	207	0	128	248	177	760	760
C	205	29	0	151	3	388	387
D	1261	163	237	0	967	2628	2627
E	58	173	1	806	0	1038	1037
TOT D	1731	483	470	1561	1372		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.04	1	1.05	1		

Iteration 2:

	A	B	C	D	E	low Fact.
A	0	120.1	101.7	365	219.4	0.997
B	213	0	129.5	263.3	179.2	0.968
C	218.4	31.17	0	165.2	3.09	0.926
D	1297	170.9	238.6	0	975.4	0.979
E	64.87	197.4	1.07	929.8	0	0.869

	A	B	C	D	E	TOT O	Tar O
A	0	120	101	364	219	804	804
B	206	0	125	255	174	760	760
C	202	29	0	153	3	387	387
D	1271	167	234	0	955	2627	2627
E	56	172	1	808	0	1037	1037
TOT D	1735	488	461	1580	1351		
Tar D	1758	500	470	1637	1378		
Col Fac	1.01	1.02	1.02	1.04	1.02		

Iteration 3:

	A	B	C	D	E	low Fact.
A	0	122.5	103.7	379.6	223.8	0.969
B	215.1	0	132.1	273.9	182.8	0.945
C	220.6	31.79	0	171.8	3.152	0.906
D	1310	174.3	243.4	0	994.9	0.965
E	65.52	201.4	1.091	967	0	0.84

	A	B	C	D	E	TOT O	Tar O
A	0	119	100	368	217	804	804
B	203	0	125	259	173	760	760
C	200	29	0	156	3	388	387
D	1264	168	235	0	960	2627	2627
E	55	169	1	812	0	1037	1037
TOT D	1722	485	461	1595	1353		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.03	1.02	1.03	1.02		

Iteration 4:

	A	B	C	D	E	low Fact.
A	0	126.1	105.8	391	228.3	0.945
B	219.4	0	134.7	282.1	186.5	0.924
C	225	32.75	0	176.9	3.215	0.884
D	1337	179.5	248.2	0	1015	0.945
E	66.83	207.4	1.113	996	0	0.816

	A	B	C	D	E	TOT O	Tar O
A	0	119	100	369	216	804	804
B	203	0	124	261	172	760	760
C	199	29	0	156	3	387	387
D	1263	170	235	0	959	2627	2627
E	55	169	1	812	0	1037	1037
TOT D	1720	487	460	1598	1350		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.03	1.02	1.02	1.02		

Iteration 5:

	A	B	C	D	E	low Fact.
A	0	129.9	107.9	398.8	232.8	0.925
B	223.8	0	137.4	287.7	190.2	0.906
C	229.5	33.73	0	180.5	3.279	0.866
D	1363	184.9	253.2	0	1035	0.926
E	68.17	213.6	1.135	1016	0	0.798

	A	B	C	D	E	TOT O	Tar O
A	0	120	100	369	215	804	804
B	203	0	124	261	172	760	760
C	199	29	0	156	3	387	387
D	1263	171	235	0	959	2628	2627
E	54	171	1	811	0	1037	1037
TOT D	1719	491	460	1597	1349		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.02	1.02	1.03	1.02		

Iteration 6:

	A	B	C	D	E	low Fact.
A	0	132.5	110	410.7	237.5	0.903
B	228.3	0	140.1	296.4	194	0.885
C	234.1	34.4	0	185.9	3.345	0.846
D	1391	188.6	258.3	0	1056	0.908
E	69.53	217.9	1.158	1046	0	0.777

	A	B	C	D	E	TOT O	Tar O
A	0	120	99	371	214	804	804
B	202	0	124	262	172	760	760
C	198	29	0	157	3	387	387
D	1263	171	235	0	959	2628	2627
E	54	169	1	813	0	1037	1037
TOT D	1717	489	459	1603	1348		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.02	1.02	1.02	1.02		

Iteration 7:

	A	B	C	D	E	low Fact.
A	0	135.2	112.2	419	242.2	0.885
B	232.9	0	142.9	302.3	197.9	0.868
C	238.8	35.09	0	189.6	3.412	0.829
D	1418	192.4	263.4	0	1077	0.89
E	70.92	222.2	1.181	1067	0	0.762

	A	B	C	D	E	TOT O	Tar O
A	0	120	99	371	214	804	804
B	202	0	124	262	172	760	760
C	198	29	0	157	3	387	387
D	1263	171	235	0	959	2628	2627
E	54	169	1	813	0	1037	1037
TOT D	1717	489	459	1603	1348		
Tar D	1758	500	470	1637	1378		
Col Fac	1.02	1.02	1.02	1.02	1.02		

Observed AM

2024	A	B	C	D	E	TOT O
A	0	224	160	655	223	1262
B	162	0	77	217	79	535
C	133	54	0	162	0	349
D	557	189	146	0	834	1726
E	40	328	2	787	0	1157
TOT D	892	795	385	1821	1136	

Furnessed Future

2028	A	B	C	D	E	TOT O	Tar O
A	0	222	178	629	241	1270	1269
B	184	0	85	208	85	562	562
C	131	46	0	134	0	311	311
D	631	185	161	0	893	1870	1870
E	50	354	2	825	0	1231	
TOT D	996	807	426	1796	1219		
Tar D	999	805	424	1797	1219		

PRTM

2024	A	B	C	D	E	TOT O
A	0	0	82	1079	2	1163
B	117	0	129	9	468	723
C	91	61	0	171	0	323
D	1009	41	174	0	715	1939
E	0	420	0	611	0	1031
TOT D	1217	522	385	1870	1185	

2028	A	B	C	D	E	TOT O
A	0	12	122	1034	2	1170
B	113	0	110	9	518	750
C	109	56	0	120	0	285
D	1099	44	192	0	748	2083
E	3	420	0	683	0	1106
TOT D	1324	532	424	1846	1268	

A	Groby Road
B	Leicester Road
C	A46 S
D	Markfield
E	A46 N

Error Range

$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right|$ < defined error bound

Derivation of targets - additive or multiplicative?!

Additive:

$\boldsymbol{Target = Observed + (PRTM2031 - PRTM2021)}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
1262	7	1269	892	107	999
535	27	562	795	10	805
349	-38	311	385	39	424
1726	144	1870	1821	-24	1797
1157	75	1232	1136	83	1219

Multi:

$\boldsymbol{Target = Observed \times \frac{PRTM2031}{PRTM2021}}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
1262	1.006	1270	892	1.088	970
535	1.037	555	795	1.019	810
349	0.882	308	385	1.101	424
1726	1.074	1854	1821	0.987	1798
1157	1.073	1241	1136	1.07	1216

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$\boldsymbol{T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}}$

$\boldsymbol{Target\ Origin = \frac{Derived\ Origin\ Target \times T}{Sum\ of\ all\ derived\ origin\ targets}}$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	D	E	TOT O	Tar O
A	0	224	160	655	223	1262	1269
B	162	0	77	217	79	535	562
C	133	54	0	162	0	349	311
D	557	189	146	0	834	1726	1870
E	40	328	2	787	0	1157	1232
TOT D	892	795	385	1821	1136		
Tar D	999	805	424	1797	1219		
Col Fac	1.12	1.01	1.1	0.99	1.07		

Iteration 1:

	A	B	C	D	E	low Fact.
A	0	226	176	648	239	0.984
B	181.4	0	85	215	85	0.994
C	149	55	0	160	0	0.855
D	623.8	191	161	0	892	1.001
E	44.8	331	2	779	0	1.064

	A	B	C	D	E	TOT O	Tar O
A	0	223	173	638	235	1269	1269
B	180	0	84	214	84	562	562
C	127	47	0	137	0	311	311
D	625	191	161	0	893	1870	1870
E	48	353	2	829	0	1232	1232
TOT D	980	814	420	1818	1212		
Tar D	999	805	424	1797	1219		
Col Fac	1.02	0.99	1.01	0.99	1.01		

Iteration 2:

	A	B	C	D	E	low Fact.
A	0	224	177.8	642	241	0.988
B	185.1	0	85.55	212.7	85.38	0.988
C	151.9	53.99	0	158.8	0	0.853
D	636.3	189	162.2	0	901.3	0.99
E	45.7	328	2.222	771.3	0	1.074

	A	B	C	D	E	TOT O	Tar O
A	0	221	176	634	238	1269	1269
B	183	0	85	210	84	562	562
C	130	46	0	135	0	311	311
D	630	187	161	0	892	1870	1870
E	49	352	2	828	0	1231	1232
TOT D	992	806	424	1807	1214		
Tar D	999	805	424	1797	1219		
Col Fac	1.01	1	1	0.99	1		

Iteration 3:

	A	B	C	D	E	low Fact.
A	0	224	177.8	635.5	241	0.993
B	186.9	0	85.55	210.6	85.38	0.989
C	153.5	53.99	0	157.2	0	0.853
D	642.7	189	162.2	0	901.3	0.987
E	46.15	328	2.222	763.6	0	1.081

	A	B	C	D	E	TOT O	Tar O
A	0	222	176	631	239	1268	1269
B	185	0	85	208	84	562	562
C	131	46	0	134	0	311	311
D	634	186	160	0	889	1869	1870
E	50	354	2	825	0	1231	1232
TOT D	1000	808	423	1798	1212		
Tar D	999	805	424	1797	1219		
Col Fac	1	1	1	1	1.01		

Iteration 4:

	A	B	C	D	E	low Fact.
A	0	224	177.8	635.5	243.4	0.991
B	186.9	0	85.55	210.6	86.23	0.987
C	153.5	53.99	0	157.2	0	0.853
D	642.7	189	162.2	0	910.3	0.982
E	46.15	328	2.222	763.6	0	1.081

	A	B	C	D	E	TOT O	Tar O
A	0	222	176	630	241	1269	1269
B	185	0	84	208	85	562	562
C	131	46	0	134	0	311	311
D	631	186	159	0	894	1870	1870
E	50	354	2	825	0	1231	1232
TOT D	997	808	421	1797	1220		
Tar D	999	805	424	1797	1219		
Col Fac	1	1	1.01	1	1		

Iteration 5:

	A	B	C	D	E	low Fact.
A	0	224	179.5	635.5	243.4	0.989
B	186.9	0	86.4	210.6	86.23	0.986
C	153.5	53.99	0	157.2	0	0.853
D	642.7	189	163.8	0	910.3	0.981
E	46.15	328	2.244	763.6	0	1.081

	A	B	C	D	E	TOT O	Tar O
A	0	222	178	629	241	1270	1269
B	184	0	85	208	85	562	562
C	131	46	0	134	0	311	311
D	631	185	161	0	893	1870	1870
E	50	354	2	825	0	1231	1232
TOT D	996	807	426	1796	1219		
Tar D	999	805	424	1797	1219		
Col Fac	1	1	1	1	1		

Iteration 6:

	A	B	C	D	E	low Fact.
A	0	224	179.5	635.5	243.4	0.989
B	186.9	0	86.4	210.6	86.23	0.986
C	153.5	53.99	0	157.2	0	0.853
D	642.7	189	163.8	0	910.3	0.981
E	46.15	328	2.244	763.6	0	1.081

	A	B	C	D	E	TOT O	Tar O
A	0	222	178	629	241	1270	1269
B	184	0	85	208	85	562	562
C	131	46	0	134	0	311	311
D	631	185	161	0	893	1870	1870
E	50	354	2	825	0	1231	1232
TOT D	996	807	426	1796	1219		
Tar D	999	805	424	1797	1219		
Col Fac	1	1	1	1	1		

Iteration 7:

	A	B	C	D	E	low Fact.
A	0	224	179.5	635.5	243.4	0.989
B	186.9	0	86.4	210.6	86.23	0.986
C	153.5	53.99	0	157.2	0	0.853
D	642.7	189	163.8	0	910.3	0.981
E	46.15	328	2.244	763.6	0	1.081

	A	B	C	D	E	TOT O	Tar O
A	0	222	178	629	241	1270	1269
B	184	0	85	208	85	562	562
C	131	46	0	134	0	311	311
D	631	185	161	0	893	1870	1870
E	50	354	2	825	0	1231	1232
TOT D	996	807	426	1796	1219		
Tar D	999	805	424	1797	1219		
Col Fac	1	1	1	1	1		

Junction 6 2031 Furnessing

Observed AM

2024	A	B	C	D	E	TOT O
A	0	104	95	316	213	728
B	197	0	121	228	174	720
C	202	27	0	143	3	375
D	1200	148	223	0	947	2518
E	60	171	1	805	0	1037
TOT D	1659	450	440	1492	1337	

Furnessed Future

2031	A	B	C	D	E	TOT O	Tar O
A	0	123	105	393	217	838	838
B	210	0	132	280	175	797	796
C	190	28	0	155	3	376	376
D	1292	175	246	0	962	2675	2675
E	53	166	1	818	0	1038	
TOT D	1745	492	484	1646	1357		
Tar D	1787	507	498	1685	1394		

PRTM

2024	A	B	C	D	E	TOT O
A	0	0	53	662	3	718
B	124	0	165	14	637	940
C	169	57	0	161	0	387
D	1389	38	233	0	850	2510
E	10	358	0	760	0	
TOT D	1692	453	451	1597	1490	

2031	A	B	C	D	E	TOT O
A	0	0	61	764	3	828
B	105	0	238	14	659	1016
C	182	43	0	163	0	388
D	1523	49	210	0	885	2667
E	10	418	0	849	0	
TOT D	1820	510	509	1790	1547	

A	Groby Road
B	Leicester Road
C	A46 S
D	Markfield
Examp	A46 N

Error Range

$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right|$ < defined error bound

Derivation of targets - additive or multiplicative?!

Additive:

$Target = Observed + (PRTM2031 - PRTM2021)$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
728	110	838	1659	128	1787
720	76	796	450	57	507
375	1	376	440	58	498
2518	157	2675	1492	193	1685
1037	0	1037	1337	57	1394

Multi:

$Target = Observed * \frac{PRTM2031}{PRTM2021}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
728	1.153	840	1659	1.076	1785
720	1.081	778	450	1.126	507
375	1.003	376	440	1.129	497
2518	1.063	2676	1492	1.121	1672
1037	0	0	1337	1.038	1388

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}$

$Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	D	E	TOT O	Tar O
A	0	104	95	316	213	728	838
B	197	0	121	228	174	720	796
C	202	27	0	143	3	375	376
D	1200	148	223	0	947	2518	2675
E	60	171	1	805	0	1037	1037
TOT D	1659	450	440	1492	1337		
Tar D	1787	507	498	1685	1394		
Col Fac	1.08	1.13	1.13	1.13	1.04		

Additive:

Iteration 1:

	A	B	C	D	E	low Fact.
A	0	118	107	357	222	1.043
B	212.8	0	137	258	181	1.01
C	218.2	31	0	162	3	0.91
D	1296	167	252	0	985	0.991
E	64.8	193	1	910	0	0.887

	A	B	C	D	E	TOT O	Tar O
A	0	123	112	372	231	838	838
B	215	0	138	260	183	796	796
C	198	28	0	147	3	376	376
D	1284	166	250	0	976	2676	2675
E	57	171	1	807	0	1036	1037
TOT D	1754	488	501	1586	1393		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.04	0.99	1.06	1		

Iteration 2:

	A	B	C	D	E	low Fact.
A	0	122.2	106.3	378.5	221.5	1.011
B	217	0	135.4	273.1	181	0.987
C	222.5	31.73	0	171.3	3.12	0.877
D	1322	173.9	249.5	0	984.9	0.98
E	66.1	201	1.119	964.2	0	0.841

	A	B	C	D	E	TOT O	Tar O
A	0	124	107	383	224	838	838
B	214	0	134	270	179	797	796
C	195	28	0	150	3	376	376
D	1295	170	244	0	965	2674	2675
E	56	169	1	811	0	1037	1037
TOT D	1760	491	486	1614	1371		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.03	1.02	1.04	1.02		

Iteration 3:

	A	B	C	D	E	low Fact.
A	0	125.9	108.4	393.6	226	0.981
B	221.4	0	138.1	284	184.6	0.961
C	227	32.68	0	178.1	3.182	0.853
D	1348	179.1	254.5	0	1005	0.96
E	67.42	207	1.141	1003	0	0.811

	A	B	C	D	E	TOT O	Tar O
A	0	124	106	386	222	838	838
B	213	0	133	273	177	796	796
C	194	28	0	152	3	377	376
D	1294	172	244	0	964	2674	2675
E	55	168	1	813	0	1037	1037
TOT D	1756	492	484	1624	1366		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.03	1.03	1.04	1.02		

Iteration 4:

	A	B	C	D	E	low Fact.
A	0	129.7	111.7	409.4	230.5	0.951
B	225.8	0	142.2	295.4	188.3	0.935
C	231.5	33.66	0	185.3	3.246	0.829
D	1375	184.5	262.1	0	1025	0.94
E	68.77	213.2	1.175	1043	0	0.782

	A	B	C	D	E	TOT O	Tar O
A	0	123	106	389	219	837	838
B	211	0	133	276	176	796	796
C	192	28	0	154	3	377	376
D	1292	173	246	0	963	2674	2675
E	54	167	1	816	0	1038	1037
TOT D	1749	491	486	1635	1361		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.03	1.02	1.03	1.02		

Iteration 5:

	A	B	C	D	E	low Fact.
A	0	133.6	113.9	421.7	235.1	0.927
B	230.3	0	145.1	304.2	192	0.913
C	236.1	34.67	0	190.8	3.311	0.809
D	1403	190.1	267.3	0	1045	0.921
E	70.14	219.6	1.199	1074	0	0.76

	A	B	C	D	E	TOT O	Tar O
A	0	124	106	391	218	839	838
B	210	0	132	278	175	795	796
C	191	28	0	154	3	376	376
D	1292	175	246	0	962	2675	2675
E	53	167	1	816	0	1037	1037
TOT D	1746	494	485	1639	1358		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.03	1.03	1.03	1.03		

Iteration 6:

	A	B	C	D	E	low Fact.
A	0	137.6	117.3	434.3	242.1	0.9
B	234.9	0	149.4	313.4	197.8	0.889
C	240.9	35.71	0	196.5	3.41	0.789
D	1431	195.8	275.4	0	1077	0.898
E	71.54	226.2	1.235	1106	0	0.738

	A	B	C	D	E	TOT O	Tar O
A	0	124	106	391	218	839	838
B	209	0	133	279	176	797	796
C	190	28	0	155	3	376	376
D	1285	176	247	0	967	2675	2675
E	53	167	1	816	0	1037	1037
TOT D	1737	495	487	1641	1364		
Tar D	1787	507	498	1685	1394		
Col Fac	1.03	1.02	1.02	1.03	1.02		

Iteration 7:

	A	B	C	D	E	low Fact.
A	0	140.3	119.6	447.4	247	0.878
B	242	0	152.4	322.8	201.8	0.866
C	248.1	36.43	0	202.4	3.479	0.767
D	1474	199.7	280.9	0	1098	0.876
E	73.69	230.7	1.259	1140	0	0.718

	A	B	C	D	E	TOT O	Tar O
A	0	123	105	393	217	838	838
B	210	0	132	280	175	797	796
C	190	28	0	155	3	376	376
D	1292	175	246	0	962	2675	2675
E	53	166	1	818	0	1038	1037
TOT D	1745	492	484	1646	1357		
Tar D	1787	507	498	1685	1394		
Col Fac	1.02	1.03	1.03	1.02	1.03		

Observed AM

2024	A	B	C	D	E	TOT O
A	0	224	160	655	223	1262
B	162	0	77	217	79	535
C	133	54	0	162	0	349
D	557	189	146	0	834	1726
E	40	328	2	787	0	1157
TOT D	892	795	385	1821	1136	

Furnessed Future

2031	A	B	C	D	E	TOT O	Tar O
A	0	240	178	656	244	1318	1319
B	190	0	79	199	79	547	547
C	133	45	0	127	0	305	305
D	683	194	156	0	876	1909	1909
E	53	362	2	811	0	1228	
TOT D	1059	841	415	1793	1199		
Tar D	1064	842	415	1789	1198		

PRTM

2024	A	B	C	D	E	TOT O
A	0	0	82	1079	2	1163
B	117	0	129	9	468	723
C	91	61	0	171	0	323
D	1009	41	174	0	715	1939
E	0	420	0	611	0	1031
TOT D	1217	522	385	1870	1185	

2031	A	B	C	D	E	TOT O
A	0	52	124	1042	2	1220
B	114	0	90	11	520	735
C	121	46	0	112	0	279
D	1151	45	201	0	725	2122
E	3	426	0	673	0	1102
TOT D	1389	569	415	1838	1247	

A	Groby Road
B	Leicester Road
C	A46 S
D	Markfield
E	A46 N

Error Range

$\left|\frac{\text{Sum of Furnessed destinations} - \text{target destinations}}{\text{target destinations}}\right|$ < defined error bound

Derivation of targets - additive or multiplicative?!

Additive:

$\boldsymbol{Target = Observed + (PRTM2031 - PRTM2021)}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
1262	57	1319	892	172	1064
535	12	547	795	47	842
349	-44	305	385	30	415
1726	183	1909	1821	-32	1789
1157	71	1228	1136	62	1198

Multi:

$\boldsymbol{Target = Observed * \frac{PRTM2031}{PRTM2021}}$

Tot O	TM Grc	Tar O	Tot D	TM Grc	Tar D
1262	1.049	1324	892	1.141	1018
535	1.017	544	795	1.09	867
349	0.864	301	385	1.078	415
1726	1.094	1889	1821	0.983	1790
1157	1.069	1237	1136	1.052	1195

Trip End Balancing - to remove imbalances from PRTM forecasts (for multiplicative approach only)

$\boldsymbol{T = \frac{Sum\ of\ derived\ target\ origins\ and\ destinations}{2}}$

$\boldsymbol{Target\ Origin = \frac{Derived\ Origin\ Target\ x\ T}{Sum\ of\ all\ derived\ origin\ targets}}$

Furnessing Iterative Process:
1. Calculate column factors
2. Adjust column entries by column factor
3. Calculate row factors
4. Adjust row entries by row factor

Iteration 0:

	A	B	C	D	E	TOT O	Tar O
A	0	224	160	655	223	1262	1319
B	162	0	77	217	79	535	547
C	133	54	0	162	0	349	305
D	557	189	146	0	834	1726	1909
E	40	328	2	787	0	1157	1228
TOT D	892	795	385	1821	1136		
Tar D	1064	842	415	1789	1198		
Col Fac	1.19	1.06	1.08	0.98	1.05		

Iteration 1:

	A	B	C	D	E	low Fact.
A	0	237	173	642	234	1.025
B	192.8	0	83	213	83	0.957
C	158.3	57	0	159	0	0.815
D	662.8	200	158	0	876	1.007
E	47.6	348	2	771	0	1.051

	A	B	C	D	E	TOT O	Tar O
A	0	243	177	658	240	1318	1319
B	184	0	80	204	79	547	547
C	129	47	0	129	0	305	305
D	667	202	159	0	881	1909	1909
E	50	365	2	810	0	1227	1228
TOT D	1030	857	418	1801	1200		
Tar D	1064	842	415	1789	1198		
Col Fac	1.03	0.98	0.99	0.99	1		

Iteration 2:

	A	B	C	D	E	low Fact.
A	0	232.7	171.1	635.5	234.2	1.036
B	198.6	0	82.33	210.5	82.95	0.952
C	163	56.1	0	157.2	0	0.811
D	682.7	196.3	156.1	0	875.7	0.999
E	49.03	340.7	2.138	763.5	0	1.063

	A	B	C	D	E	TOT O	Tar O
A	0	241	177	658	243	1319	1319
B	189	0	78	200	79	546	547
C	132	45	0	127	0	304	305
D	682	196	156	0	875	1909	1909
E	52	362	2	811	0	1227	1228
TOT D	1055	844	413	1796	1197		
Tar D	1064	842	415	1789	1198		
Col Fac	1.01	1	1	1	1		

Iteration 3:

	A	B	C	D	E	low Fact.
A	0	232.7	171.1	635.5	234.2	1.036
B	200.5	0	82.33	210.5	82.95	0.949
C	164.6	56.1	0	157.2	0	0.807
D	689.5	196.3	157.7	0	875.7	0.995
E	49.52	340.7	2.138	763.5	0	1.062

	A	B	C	D	E	TOT O	Tar O
A	0	241	177	658	243	1319	1319
B	190	0	78	200	79	547	547
C	133	45	0	127	0	305	305
D	686	195	155	0	872	1908	1909
E	53	362	2	811	0	1228	1228
TOT D	1062	843	412	1796	1194		
Tar D	1064	842	415	1789	1198		
Col Fac	1	1	1.01	1	1		

Iteration 4:

	A	B	C	D	E	low Fact.
A	0	232.7	172.8	635.5	234.2	1.034
B	200.5	0	83.15	210.5	82.95	0.948
C	164.6	56.1	0	157.2	0	0.807
D	689.5	196.3	157.7	0	875.7	0.995
E	49.52	340.7	2.16	763.5	0	1.062

	A	B	C	D	E	TOT O	Tar O
A	0	241	179	657	242	1319	1319
B	190	0	79	200	79	548	547
C	133	45	0	127	0	305	305
D	686	195	157	0	871	1909	1909
E	53	362	2	811	0	1228	1228
TOT D	1062	843	417	1795	1192		
Tar D	1064	842	415	1789	1198		
Col Fac	1	1	1	1	1.01		

Iteration 5:

	A	B	C	D	E	low Fact.
A	0	232.7	172.8	635.5	236.5	1.033
B	200.5	0	83.15	210.5	83.78	0.946
C	164.6	56.1	0	157.2	0	0.807
D	689.5	196.3	157.7	0	884.5	0.99
E	49.52	340.7	2.16	763.5	0	1.062

	A	B	C	D	E	TOT O	Tar O
A	0	240	178	656	244	1318	1319
B	190	0	79	199	79	547	547
C	133	45	0	127	0	305	305
D	683	194	156	0	876	1909	1909
E	53	362	2	811	0	1228	1228
TOT D	1059	841	415	1793	1199		
Tar D	1064	842	415	1789	1198		
Col Fac	1	1	1	1	1		

Iteration 6:

	A	B	C	D	E	low Fact.
A	0	232.7	172.8	635.5	236.5	1.033
B	200.5	0	83.15	210.5	83.78	0.946
C	164.6	56.1	0	157.2	0	0.807
D	689.5	196.3	157.7	0	884.5	0.99
E	49.52	340.7	2.16	763.5	0	1.062

	A	B	C	D	E	TOT O	Tar O
A	0	240	178	656	244	1318	1319
B	190	0	79	199	79	547	547
C	133	45	0	127	0	305	305
D	683	194	156	0	876	1909	1909
E	53	362	2	811	0	1228	1228
TOT D	1059	841	415	1793	1199		
Tar D	1064	842	415	1789	1198		
Col Fac	1	1	1	1	1		

Iteration 7:

	A	B	C	D	E	low Fact.
A	0	232.7	172.8	635.5	236.5	1.033
B	200.5	0	83.15	210.5	83.78	0.946
C	164.6	56.1	0	157.2	0	0.807
D	689.5	196.3	157.7	0	884.5	0.99
E	49.52	340.7	2.16	763.5	0	1.062

	A	B	C	D	E	TOT O	Tar O
A	0	240	178	656	244	1318	1319
B	190	0	79	199	79	547	547
C	133	45	0	127	0	305	305
D	683	194	156	0	876	1909	1909
E	53	362	2	811	0	1228	1228
TOT D	1059	841	415	1793	1199		
Tar D	1064	842	415	1789	1198		
Col Fac	1	1	1	1	1		

Appendix D Leicester Road/ Sacheverell Way Model Outputs

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Base Model.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:29:46

»2024 Base, AM
»2024 Base, PM
»2028 Furnessed Future, AM
»2028 Furnessed Future, PM
»2028 Furnessed Future + Dev, AM
»2028 Furnessed Future + Dev, PM
»2031 Furnessed Future, AM
»2031 Furnessed Future, PM
»2031 Furnessed Future + Dev, AM
»2031 Furnessed Future + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base							
1 - Leicester Road (W)	0.2	2.42	0.18	A	0.1	2.18	0.13	A
2 - Leicester Road (E)	0.5	2.63	0.32	A	1.0	3.57	0.50	A
3 - Sacheverell Way	0.4	2.88	0.29	A	0.4	2.99	0.27	A
	2028 Furnessed Future							
1 - Leicester Road (W)	0.3	2.53	0.21	A	0.2	2.23	0.14	A
2 - Leicester Road (E)	0.6	2.83	0.36	A	1.2	3.85	0.53	A
3 - Sacheverell Way	0.4	2.94	0.30	A	0.4	3.17	0.30	A
	2028 Furnessed Future + Dev							
1 - Leicester Road (W)	0.3	2.55	0.22	A	0.2	2.24	0.14	A
2 - Leicester Road (E)	0.6	2.85	0.37	A	1.2	3.90	0.54	A
3 - Sacheverell Way	0.5	3.00	0.32	A	0.4	3.18	0.30	A
	2031 Furnessed Future							
1 - Leicester Road (W)	0.3	2.63	0.24	A	0.2	2.22	0.14	A
2 - Leicester Road (E)	0.6	2.92	0.38	A	1.3	4.05	0.56	A
3 - Sacheverell Way	0.5	2.98	0.31	A	0.4	3.20	0.29	A
	2031 Furnessed Future + Dev							
1 - Leicester Road (W)	0.3	2.73	0.26	A	0.2	2.26	0.15	A
2 - Leicester Road (E)	0.6	3.01	0.39	A	1.4	4.28	0.58	A
3 - Sacheverell Way	0.5	3.10	0.34	A	0.4	3.27	0.31	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	2.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	2189
2 - Leicester Road (E)	0.742	2096
3 - Sacheverell Way	0.705	1999

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	300	100.000
2 - Leicester Road (E)		✓	588	100.000
3 - Sacheverell Way		✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	22	216	62
	2 - Leicester Road (E)	243	5	340
	3 - Sacheverell Way	33	442	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.18	2.42	0.2	A
2 - Leicester Road (E)	0.32	2.63	0.5	A
3 - Sacheverell Way	0.29	2.88	0.4	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	336	1939	0.117	225	0.1	2.104	A
2 - Leicester Road (E)	443	63	2049	0.216	442	0.3	2.257	A
3 - Sacheverell Way	358	203	1856	0.193	357	0.2	2.431	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	270	402	1889	0.143	270	0.2	2.225	A
2 - Leicester Road (E)	529	75	2040	0.259	528	0.4	2.401	A
3 - Sacheverell Way	427	243	1828	0.234	427	0.3	2.603	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	330	492	1822	0.181	330	0.2	2.415	A
2 - Leicester Road (E)	647	92	2027	0.319	647	0.5	2.629	A
3 - Sacheverell Way	523	297	1789	0.292	523	0.4	2.879	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	330	492	1822	0.181	330	0.2	2.416	A
2 - Leicester Road (E)	647	92	2027	0.319	647	0.5	2.630	A
3 - Sacheverell Way	523	297	1789	0.292	523	0.4	2.879	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	270	402	1889	0.143	270	0.2	2.228	A
2 - Leicester Road (E)	529	76	2040	0.259	529	0.4	2.402	A
3 - Sacheverell Way	427	243	1827	0.234	427	0.3	2.607	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	337	1938	0.117	226	0.1	2.107	A
2 - Leicester Road (E)	443	63	2049	0.216	443	0.3	2.261	A
3 - Sacheverell Way	358	203	1855	0.193	358	0.2	2.437	A

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	3.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	221	100.000
2 - Leicester Road (E)		✓	933	100.000
3 - Sacheverell Way		✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	13	166	42
	2 - Leicester Road (E)	424	3	506
	3 - Sacheverell Way	52	354	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.13	2.18	0.1	A
2 - Leicester Road (E)	0.50	3.57	1.0	A
3 - Sacheverell Way	0.27	2.99	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	166	268	1989	0.084	166	0.1	1.977	A
2 - Leicester Road (E)	702	41	2065	0.340	700	0.5	2.679	A
3 - Sacheverell Way	306	330	1766	0.173	305	0.2	2.474	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	199	321	1950	0.102	199	0.1	2.057	A
2 - Leicester Road (E)	839	49	2059	0.407	838	0.7	2.996	A
3 - Sacheverell Way	365	395	1720	0.212	365	0.3	2.668	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	243	393	1896	0.128	243	0.1	2.180	A
2 - Leicester Road (E)	1027	61	2051	0.501	1026	1.0	3.566	A
3 - Sacheverell Way	447	484	1657	0.270	447	0.4	2.986	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	243	393	1896	0.128	243	0.1	2.180	A
2 - Leicester Road (E)	1027	61	2051	0.501	1027	1.0	3.575	A
3 - Sacheverell Way	447	484	1657	0.270	447	0.4	2.987	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	199	321	1949	0.102	199	0.1	2.060	A
2 - Leicester Road (E)	839	49	2059	0.407	840	0.7	3.005	A
3 - Sacheverell Way	365	396	1719	0.212	365	0.3	2.673	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	166	269	1988	0.084	166	0.1	1.978	A
2 - Leicester Road (E)	702	41	2065	0.340	703	0.5	2.690	A
3 - Sacheverell Way	306	332	1765	0.173	306	0.2	2.480	A

2028 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	2.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	353	100.000
2 - Leicester Road (E)		✓	662	100.000
3 - Sacheverell Way		✓	485	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	250	78
	2 - Leicester Road (E)	260	5	397
	3 - Sacheverell Way	34	451	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.21	2.53	0.3	A
2 - Leicester Road (E)	0.36	2.83	0.6	A
3 - Sacheverell Way	0.30	2.94	0.4	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	266	342	1933	0.137	265	0.2	2.161	A
2 - Leicester Road (E)	498	77	2038	0.245	497	0.3	2.353	A
3 - Sacheverell Way	365	218	1845	0.198	364	0.2	2.461	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	317	410	1883	0.169	317	0.2	2.301	A
2 - Leicester Road (E)	595	93	2027	0.294	595	0.4	2.534	A
3 - Sacheverell Way	436	261	1815	0.240	436	0.3	2.644	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	389	502	1815	0.214	388	0.3	2.527	A
2 - Leicester Road (E)	729	113	2012	0.362	728	0.6	2.827	A
3 - Sacheverell Way	534	319	1774	0.301	534	0.4	2.940	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	389	502	1815	0.214	389	0.3	2.528	A
2 - Leicester Road (E)	729	113	2012	0.362	729	0.6	2.829	A
3 - Sacheverell Way	534	319	1773	0.301	534	0.4	2.941	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	317	410	1883	0.169	318	0.2	2.305	A
2 - Leicester Road (E)	595	93	2027	0.294	596	0.4	2.539	A
3 - Sacheverell Way	436	261	1815	0.240	436	0.3	2.646	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	266	344	1933	0.138	266	0.2	2.164	A
2 - Leicester Road (E)	498	78	2038	0.245	499	0.3	2.358	A
3 - Sacheverell Way	365	218	1845	0.198	365	0.3	2.465	A

2028 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	3.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	240	100.000
2 - Leicester Road (E)		✓	993	100.000
3 - Sacheverell Way		✓	435	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	47
	2 - Leicester Road (E)	470	3	520
	3 - Sacheverell Way	62	373	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.14	2.23	0.2	A
2 - Leicester Road (E)	0.53	3.85	1.2	A
3 - Sacheverell Way	0.30	3.17	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	282	1978	0.091	180	0.1	2.004	A
2 - Leicester Road (E)	748	47	2061	0.363	745	0.6	2.776	A
3 - Sacheverell Way	327	367	1740	0.188	327	0.2	2.557	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	216	338	1937	0.111	216	0.1	2.093	A
2 - Leicester Road (E)	893	57	2054	0.435	892	0.8	3.147	A
3 - Sacheverell Way	391	439	1689	0.232	391	0.3	2.785	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	414	1880	0.141	264	0.2	2.229	A
2 - Leicester Road (E)	1093	69	2044	0.535	1092	1.2	3.834	A
3 - Sacheverell Way	479	538	1619	0.296	478	0.4	3.167	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	414	1880	0.141	264	0.2	2.229	A
2 - Leicester Road (E)	1093	69	2044	0.535	1093	1.2	3.846	A
3 - Sacheverell Way	479	538	1619	0.296	479	0.4	3.171	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	216	338	1936	0.111	216	0.1	2.094	A
2 - Leicester Road (E)	893	57	2054	0.435	894	0.8	3.160	A
3 - Sacheverell Way	391	440	1688	0.232	392	0.3	2.789	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	283	1977	0.091	181	0.1	2.007	A
2 - Leicester Road (E)	748	47	2061	0.363	748	0.6	2.789	A
3 - Sacheverell Way	327	369	1739	0.188	328	0.2	2.564	A

2028 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	2.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	352	100.000
2 - Leicester Road (E)		✓	671	100.000
3 - Sacheverell Way		✓	508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	249	78
	2 - Leicester Road (E)	259	5	407
	3 - Sacheverell Way	40	468	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.22	2.55	0.3	A
2 - Leicester Road (E)	0.37	2.85	0.6	A
3 - Sacheverell Way	0.32	3.00	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	355	1924	0.138	264	0.2	2.172	A
2 - Leicester Road (E)	505	77	2038	0.248	504	0.3	2.364	A
3 - Sacheverell Way	382	217	1846	0.207	381	0.3	2.489	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	316	425	1872	0.169	316	0.2	2.317	A
2 - Leicester Road (E)	603	93	2027	0.298	603	0.4	2.549	A
3 - Sacheverell Way	457	260	1816	0.252	456	0.3	2.683	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	388	520	1801	0.215	387	0.3	2.550	A
2 - Leicester Road (E)	739	113	2012	0.367	738	0.6	2.849	A
3 - Sacheverell Way	559	318	1774	0.315	559	0.5	2.998	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	388	521	1801	0.215	388	0.3	2.551	A
2 - Leicester Road (E)	739	113	2012	0.367	739	0.6	2.852	A
3 - Sacheverell Way	559	318	1774	0.315	559	0.5	3.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	316	426	1871	0.169	317	0.2	2.320	A
2 - Leicester Road (E)	603	93	2027	0.298	604	0.4	2.553	A
3 - Sacheverell Way	457	260	1815	0.252	457	0.3	2.687	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	356	1923	0.138	265	0.2	2.176	A
2 - Leicester Road (E)	505	78	2038	0.248	506	0.3	2.371	A
3 - Sacheverell Way	382	218	1845	0.207	383	0.3	2.495	A

2028 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	3.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	243	100.000
2 - Leicester Road (E)		✓	1002	100.000
3 - Sacheverell Way		✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	50
	2 - Leicester Road (E)	470	3	529
	3 - Sacheverell Way	62	376	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.14	2.24	0.2	A
2 - Leicester Road (E)	0.54	3.90	1.2	A
3 - Sacheverell Way	0.30	3.18	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	285	1977	0.093	183	0.1	2.009	A
2 - Leicester Road (E)	754	50	2059	0.366	752	0.6	2.795	A
3 - Sacheverell Way	330	367	1740	0.190	329	0.2	2.561	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	340	1935	0.113	218	0.1	2.099	A
2 - Leicester Road (E)	901	59	2052	0.439	900	0.8	3.175	A
3 - Sacheverell Way	394	439	1689	0.233	393	0.3	2.791	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	417	1878	0.142	267	0.2	2.237	A
2 - Leicester Road (E)	1103	73	2042	0.540	1102	1.2	3.885	A
3 - Sacheverell Way	482	538	1619	0.298	482	0.4	3.176	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	417	1878	0.142	268	0.2	2.238	A
2 - Leicester Road (E)	1103	73	2042	0.540	1103	1.2	3.897	A
3 - Sacheverell Way	482	538	1619	0.298	482	0.4	3.180	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	341	1934	0.113	219	0.1	2.100	A
2 - Leicester Road (E)	901	59	2052	0.439	902	0.8	3.189	A
3 - Sacheverell Way	394	440	1688	0.233	394	0.3	2.795	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	286	1976	0.093	183	0.1	2.010	A
2 - Leicester Road (E)	754	50	2059	0.366	755	0.6	2.807	A
3 - Sacheverell Way	330	369	1739	0.190	330	0.2	2.566	A

2031 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	2.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	390	100.000
2 - Leicester Road (E)		✓	688	100.000
3 - Sacheverell Way		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	273	90
	2 - Leicester Road (E)	257	5	426
	3 - Sacheverell Way	34	467	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.24	2.63	0.3	A
2 - Leicester Road (E)	0.38	2.92	0.6	A
3 - Sacheverell Way	0.31	2.98	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	294	354	1925	0.153	293	0.2	2.208	A
2 - Leicester Road (E)	518	88	2031	0.255	517	0.3	2.396	A
3 - Sacheverell Way	377	217	1846	0.204	376	0.3	2.480	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	351	424	1873	0.187	350	0.2	2.368	A
2 - Leicester Road (E)	618	105	2018	0.307	618	0.4	2.594	A
3 - Sacheverell Way	450	260	1816	0.248	450	0.3	2.670	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	429	519	1802	0.238	429	0.3	2.626	A
2 - Leicester Road (E)	758	129	2000	0.379	757	0.6	2.919	A
3 - Sacheverell Way	552	318	1774	0.311	551	0.5	2.979	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	429	520	1801	0.238	429	0.3	2.627	A
2 - Leicester Road (E)	758	129	2000	0.379	757	0.6	2.921	A
3 - Sacheverell Way	552	318	1774	0.311	552	0.5	2.981	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	351	425	1872	0.187	351	0.2	2.370	A
2 - Leicester Road (E)	618	105	2018	0.307	619	0.4	2.599	A
3 - Sacheverell Way	450	260	1815	0.248	451	0.3	2.673	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	294	356	1924	0.153	294	0.2	2.212	A
2 - Leicester Road (E)	518	88	2030	0.255	518	0.3	2.403	A
3 - Sacheverell Way	377	218	1845	0.204	377	0.3	2.484	A

2031 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	3.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	241	100.000
2 - Leicester Road (E)		✓	1034	100.000
3 - Sacheverell Way		✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	175	49
	2 - Leicester Road (E)	495	3	536
	3 - Sacheverell Way	65	362	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.14	2.22	0.2	A
2 - Leicester Road (E)	0.56	4.05	1.3	A
3 - Sacheverell Way	0.29	3.20	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	274	1984	0.091	181	0.1	1.998	A
2 - Leicester Road (E)	778	50	2059	0.378	776	0.6	2.846	A
3 - Sacheverell Way	321	387	1726	0.186	321	0.2	2.571	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	217	328	1944	0.111	217	0.1	2.085	A
2 - Leicester Road (E)	930	59	2052	0.453	929	0.8	3.253	A
3 - Sacheverell Way	384	463	1672	0.230	384	0.3	2.805	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	401	1889	0.140	265	0.2	2.218	A
2 - Leicester Road (E)	1138	73	2042	0.558	1137	1.3	4.034	A
3 - Sacheverell Way	470	566	1599	0.294	470	0.4	3.199	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	402	1889	0.140	265	0.2	2.219	A
2 - Leicester Road (E)	1138	73	2042	0.558	1138	1.3	4.048	A
3 - Sacheverell Way	470	567	1599	0.294	470	0.4	3.203	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	217	329	1944	0.111	217	0.1	2.086	A
2 - Leicester Road (E)	930	59	2052	0.453	931	0.8	3.268	A
3 - Sacheverell Way	384	464	1672	0.230	384	0.3	2.809	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	275	1984	0.091	182	0.1	1.999	A
2 - Leicester Road (E)	778	50	2059	0.378	779	0.6	2.859	A
3 - Sacheverell Way	321	388	1725	0.186	322	0.2	2.579	A

2031 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	2.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	411	100.000
2 - Leicester Road (E)		✓	703	100.000
3 - Sacheverell Way		✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	272	112
	2 - Leicester Road (E)	254	5	444
	3 - Sacheverell Way	42	502	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.26	2.73	0.3	A
2 - Leicester Road (E)	0.39	3.01	0.6	A
3 - Sacheverell Way	0.34	3.10	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	309	381	1905	0.162	309	0.2	2.258	A
2 - Leicester Road (E)	529	104	2018	0.262	528	0.4	2.434	A
3 - Sacheverell Way	410	215	1847	0.222	408	0.3	2.532	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	369	455	1849	0.200	369	0.2	2.436	A
2 - Leicester Road (E)	632	125	2003	0.316	632	0.5	2.648	A
3 - Sacheverell Way	489	257	1817	0.269	489	0.4	2.744	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	453	558	1773	0.255	452	0.3	2.730	A
2 - Leicester Road (E)	774	153	1982	0.390	773	0.6	3.003	A
3 - Sacheverell Way	599	315	1777	0.337	598	0.5	3.092	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	453	558	1773	0.255	453	0.3	2.731	A
2 - Leicester Road (E)	774	153	1982	0.391	774	0.6	3.005	A
3 - Sacheverell Way	599	315	1777	0.337	599	0.5	3.095	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	369	456	1849	0.200	370	0.3	2.441	A
2 - Leicester Road (E)	632	125	2003	0.316	633	0.5	2.653	A
3 - Sacheverell Way	489	257	1817	0.269	490	0.4	2.749	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	309	382	1904	0.163	310	0.2	2.263	A
2 - Leicester Road (E)	529	105	2018	0.262	530	0.4	2.440	A
3 - Sacheverell Way	410	215	1847	0.222	410	0.3	2.540	A

2031 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	3.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		✓	251	100.000
2 - Leicester Road (E)		✓	1069	100.000
3 - Sacheverell Way		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	174	60
	2 - Leicester Road (E)	494	3	572
	3 - Sacheverell Way	65	384	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Leicester Road (W)	0.15	2.26	0.2	A
2 - Leicester Road (E)	0.58	4.28	1.4	A
3 - Sacheverell Way	0.31	3.27	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	189	291	1972	0.096	189	0.1	2.021	A
2 - Leicester Road (E)	805	58	2053	0.392	802	0.7	2.920	A
3 - Sacheverell Way	338	386	1727	0.196	337	0.2	2.601	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	348	1930	0.117	226	0.1	2.115	A
2 - Leicester Road (E)	961	69	2044	0.470	960	0.9	3.371	A
3 - Sacheverell Way	404	462	1673	0.241	403	0.3	2.847	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	276	426	1871	0.148	276	0.2	2.259	A
2 - Leicester Road (E)	1177	85	2033	0.579	1175	1.4	4.257	A
3 - Sacheverell Way	494	565	1600	0.309	494	0.4	3.266	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	276	426	1871	0.148	276	0.2	2.260	A
2 - Leicester Road (E)	1177	85	2033	0.579	1177	1.4	4.275	A
3 - Sacheverell Way	494	566	1599	0.309	494	0.4	3.271	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	348	1929	0.117	226	0.1	2.118	A
2 - Leicester Road (E)	961	69	2044	0.470	963	0.9	3.391	A
3 - Sacheverell Way	404	463	1672	0.241	404	0.3	2.852	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	189	292	1971	0.096	189	0.1	2.022	A
2 - Leicester Road (E)	805	58	2053	0.392	806	0.7	2.938	A
3 - Sacheverell Way	338	387	1725	0.196	338	0.2	2.606	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Calibration Model - AM.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:38:21

»2024 Base, AM
»2028 Furnessed Future, AM
»2028 Furnessed Future + Dev, AM
»2031 Furnessed Future, AM
»2031 Furnessed Future + Dev, AM

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base			
1 - Leicester Road (W)	1.8	19.69	0.64	C
2 - Leicester Road (E)	1.9	11.00	0.66	B
3 - Sacheverell Way	3.5	25.37	0.79	D
	2028 Furnessed Future			
1 - Leicester Road (W)	3.1	30.09	0.77	D
2 - Leicester Road (E)	3.0	15.49	0.76	C
3 - Sacheverell Way	4.3	30.69	0.82	D
	2028 Furnessed Future + Dev			
1 - Leicester Road (W)	3.4	33.25	0.79	D
2 - Leicester Road (E)	3.2	16.16	0.77	C
3 - Sacheverell Way	5.5	37.67	0.86	E
	2031 Furnessed Future			
1 - Leicester Road (W)	5.5	49.88	0.87	E
2 - Leicester Road (E)	3.8	18.55	0.80	C
3 - Sacheverell Way	5.1	35.13	0.85	E
	2031 Furnessed Future + Dev			
1 - Leicester Road (W)	11.2	92.50	0.97	F
2 - Leicester Road (E)	4.5	22.00	0.83	C
3 - Sacheverell Way	8.4	54.02	0.92	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	17.92	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Leicester Road (W)	Direct	To Calibrate and Validate to Observed Queues	-1310
2 - Leicester Road (E)	Direct	To Calibrate and Validate to Observed Queues	-1050
3 - Sacheverell Way	Direct	To Calibrate and Validate to Observed Queues	-1125

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	879
2 - Leicester Road (E)	0.742	1046
3 - Sacheverell Way	0.705	874

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	300	100.000
2 - Leicester Road (E)		ONE HOUR	✓	588	100.000
3 - Sacheverell Way		ONE HOUR	✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	22	216	62
	2 - Leicester Road (E)	243	5	340
	3 - Sacheverell Way	33	442	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.64	19.69	1.8	C	275	413
2 - Leicester Road (E)	0.66	11.00	1.9	B	540	809
3 - Sacheverell Way	0.79	25.37	3.5	D	436	654

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	56	333	630	0.358	224	223	0.0	0.6	8.815	A
2 - Leicester Road (E)	443	111	63	999	0.443	440	494	0.0	0.8	6.448	A
3 - Sacheverell Way	358	89	202	731	0.489	354	300	0.0	0.9	9.570	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	270	67	400	581	0.464	269	267	0.6	0.8	11.500	B
2 - Leicester Road (E)	529	132	75	990	0.534	527	593	0.8	1.1	7.820	A
3 - Sacheverell Way	427	107	242	703	0.607	425	360	0.9	1.5	12.998	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	330	83	485	517	0.639	327	326	0.8	1.7	18.650	C
2 - Leicester Road (E)	647	162	92	978	0.662	644	721	1.1	1.9	10.781	B
3 - Sacheverell Way	523	131	296	665	0.786	516	440	1.5	3.3	23.323	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	330	83	491	512	0.645	330	328	1.7	1.8	19.689	C
2 - Leicester Road (E)	647	162	92	977	0.663	647	729	1.9	1.9	10.998	B
3 - Sacheverell Way	523	131	297	664	0.788	522	442	3.3	3.5	25.372	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	270	67	409	574	0.470	273	270	1.8	0.9	12.112	B
2 - Leicester Road (E)	529	132	76	989	0.535	532	606	1.9	1.2	7.989	A
3 - Sacheverell Way	427	107	244	701	0.609	435	364	3.5	1.6	14.031	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	56	339	626	0.361	227	225	0.9	0.6	9.068	A
2 - Leicester Road (E)	443	111	64	999	0.443	444	503	1.2	0.8	6.565	A
3 - Sacheverell Way	358	89	204	730	0.490	360	304	1.6	1.0	9.932	A

2028 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	23.84	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	353	100.000
2 - Leicester Road (E)		ONE HOUR	✓	662	100.000
3 - Sacheverell Way		ONE HOUR	✓	485	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	250	78
	2 - Leicester Road (E)	260	5	397
	3 - Sacheverell Way	34	451	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.77	30.09	3.1	D	324	486
2 - Leicester Road (E)	0.76	15.49	3.0	C	607	911
3 - Sacheverell Way	0.82	30.69	4.3	D	445	668

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	266	66	339	626	0.425	263	238	0.0	0.7	9.863	A
2 - Leicester Road (E)	498	125	77	989	0.504	494	526	0.0	1.0	7.286	A
3 - Sacheverell Way	365	91	217	721	0.506	361	355	0.0	1.0	10.040	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	317	79	407	575	0.552	315	286	0.7	1.2	13.790	B
2 - Leicester Road (E)	595	149	92	977	0.609	593	631	1.0	1.5	9.392	A
3 - Sacheverell Way	436	109	260	690	0.631	433	425	1.0	1.7	14.038	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	389	97	493	511	0.761	382	348	1.2	2.8	26.691	D
2 - Leicester Road (E)	729	182	111	963	0.757	723	764	1.5	2.9	14.791	B
3 - Sacheverell Way	534	133	317	650	0.821	525	518	1.7	4.0	27.171	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	389	97	501	505	0.769	388	351	2.8	3.1	30.090	D
2 - Leicester Road (E)	729	182	113	962	0.758	728	775	2.9	3.0	15.492	C
3 - Sacheverell Way	534	133	319	649	0.823	533	523	4.0	4.3	30.694	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	317	79	419	566	0.560	324	290	3.1	1.3	15.314	C
2 - Leicester Road (E)	595	149	95	975	0.610	601	649	3.0	1.6	9.834	A
3 - Sacheverell Way	436	109	263	688	0.634	446	432	4.3	1.8	15.641	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	266	66	346	621	0.428	268	241	1.3	0.8	10.285	B
2 - Leicester Road (E)	498	125	78	988	0.505	501	536	1.6	1.0	7.491	A
3 - Sacheverell Way	365	91	219	719	0.508	368	359	1.8	1.1	10.483	B

2028 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	27.23	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	352	100.000
2 - Leicester Road (E)		ONE HOUR	✓	671	100.000
3 - Sacheverell Way		ONE HOUR	✓	508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	249	78
	2 - Leicester Road (E)	259	5	407
	3 - Sacheverell Way	40	468	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.79	33.25	3.4	D	323	485
2 - Leicester Road (E)	0.77	16.16	3.2	C	616	924
3 - Sacheverell Way	0.86	37.67	5.5	E	466	699

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	352	616	0.430	262	242	0.0	0.7	10.095	B
2 - Leicester Road (E)	505	126	77	989	0.511	501	537	0.0	1.0	7.382	A
3 - Sacheverell Way	382	96	216	722	0.530	378	362	0.0	1.1	10.485	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	316	79	422	564	0.561	314	290	0.7	1.2	14.339	B
2 - Leicester Road (E)	603	151	92	977	0.617	601	645	1.0	1.6	9.588	A
3 - Sacheverell Way	457	114	259	691	0.661	454	434	1.1	1.9	15.151	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	388	97	509	499	0.777	380	353	1.2	3.1	28.745	D
2 - Leicester Road (E)	739	185	111	963	0.767	733	778	1.6	3.1	15.354	C
3 - Sacheverell Way	559	140	315	651	0.859	547	529	1.9	4.9	31.775	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	388	97	519	492	0.788	386	356	3.1	3.4	33.255	D
2 - Leicester Road (E)	739	185	113	962	0.768	738	792	3.1	3.2	16.158	C
3 - Sacheverell Way	559	140	318	649	0.861	557	533	4.9	5.5	37.673	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	316	79	438	552	0.573	324	295	3.4	1.4	16.317	C
2 - Leicester Road (E)	603	151	95	975	0.619	609	667	3.2	1.7	10.084	B
3 - Sacheverell Way	457	114	263	688	0.663	470	441	5.5	2.1	17.649	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	360	611	0.434	267	245	1.4	0.8	10.575	B
2 - Leicester Road (E)	505	126	78	988	0.511	508	549	1.7	1.1	7.600	A
3 - Sacheverell Way	382	96	219	719	0.532	386	367	2.1	1.2	11.059	B

2031 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	31.55	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	390	100.000
2 - Leicester Road (E)		ONE HOUR	✓	688	100.000
3 - Sacheverell Way		ONE HOUR	✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	273	90
	2 - Leicester Road (E)	257	5	426
	3 - Sacheverell Way	34	467	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.87	49.88	5.5	E	358	537
2 - Leicester Road (E)	0.80	18.55	3.8	C	631	947
3 - Sacheverell Way	0.85	35.13	5.1	E	460	690

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	294	73	351	617	0.476	290	237	0.0	0.9	10.920	B
2 - Leicester Road (E)	518	129	87	981	0.528	514	554	0.0	1.1	7.696	A
3 - Sacheverell Way	377	94	216	722	0.523	373	385	0.0	1.1	10.335	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	351	88	422	564	0.621	348	285	0.9	1.6	16.436	C
2 - Leicester Road (E)	618	155	104	968	0.639	616	665	1.1	1.7	10.234	B
3 - Sacheverell Way	450	113	259	691	0.652	447	462	1.1	1.8	14.776	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	429	107	509	499	0.860	417	346	1.6	4.7	38.991	E
2 - Leicester Road (E)	758	189	125	953	0.795	750	801	1.7	3.6	17.287	C
3 - Sacheverell Way	552	138	315	652	0.846	540	561	1.8	4.6	30.087	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	429	107	518	493	0.872	426	350	4.7	5.5	49.877	E
2 - Leicester Road (E)	758	189	128	951	0.797	757	816	3.6	3.8	18.551	C
3 - Sacheverell Way	552	138	318	650	0.849	550	567	4.6	5.1	35.133	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	351	88	436	554	0.633	365	291	5.5	1.8	20.456	C
2 - Leicester Road (E)	618	155	110	964	0.641	626	692	3.8	1.9	10.964	B
3 - Sacheverell Way	450	113	264	688	0.655	463	472	5.1	2.0	16.990	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	294	73	359	611	0.480	297	241	1.8	0.9	11.594	B
2 - Leicester Road (E)	518	129	89	980	0.529	521	567	1.9	1.2	7.963	A
3 - Sacheverell Way	377	94	219	719	0.524	381	391	2.0	1.1	10.875	B

2031 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	49.98	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	411	100.000
2 - Leicester Road (E)		ONE HOUR	✓	703	100.000
3 - Sacheverell Way		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	272	112
	2 - Leicester Road (E)	254	5	444
	3 - Sacheverell Way	42	502	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.97	92.50	11.2	F	377	566
2 - Leicester Road (E)	0.83	22.00	4.5	C	645	968
3 - Sacheverell Way	0.92	54.02	8.4	F	499	749

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	309	77	377	598	0.518	305	241	0.0	1.0	12.166	B
2 - Leicester Road (E)	529	132	103	969	0.546	524	579	0.0	1.2	8.086	A
3 - Sacheverell Way	410	102	213	723	0.566	404	414	0.0	1.3	11.265	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	369	92	452	542	0.682	366	289	1.0	2.0	20.033	C
2 - Leicester Road (E)	632	158	124	954	0.663	629	694	1.2	1.9	11.074	B
3 - Sacheverell Way	489	122	256	693	0.705	485	497	1.3	2.3	17.178	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	453	113	541	476	0.951	429	349	2.0	7.9	58.813	F
2 - Leicester Road (E)	774	194	145	938	0.825	765	824	1.9	4.2	19.932	C
3 - Sacheverell Way	599	150	310	655	0.914	580	600	2.3	7.0	40.867	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	453	113	553	466	0.970	440	354	7.9	11.2	92.500	F
2 - Leicester Road (E)	774	194	149	935	0.828	773	844	4.2	4.5	22.002	C
3 - Sacheverell Way	599	150	314	652	0.918	594	608	7.0	8.4	54.018	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	369	92	477	523	0.706	404	298	11.2	2.6	36.522	E
2 - Leicester Road (E)	632	158	137	944	0.669	642	744	4.5	2.1	12.351	B
3 - Sacheverell Way	489	122	263	688	0.711	512	515	8.4	2.7	22.911	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	309	77	386	591	0.524	315	245	2.6	1.1	13.378	B
2 - Leicester Road (E)	529	132	107	967	0.548	533	595	2.1	1.2	8.438	A
3 - Sacheverell Way	410	102	217	721	0.568	415	422	2.7	1.4	12.113	B

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Calibration Model - PM.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:39:55

»2024 Base, PM
»2028 Furnessed Future, PM
»2028 Furnessed Future + Dev, PM
»2031 Furnessed Future, PM
»2031 Furnessed Future + Dev, PM

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base			
1 - Leicester Road (W)	0.8	11.88	0.45	B
2 - Leicester Road (E)	2.7	9.78	0.73	A
3 - Sacheverell Way	3.8	31.86	0.80	D
	2028 Furnessed Future			
1 - Leicester Road (W)	1.0	13.34	0.49	B
2 - Leicester Road (E)	3.6	12.10	0.78	B
3 - Sacheverell Way	8.2	66.16	0.92	F
	2028 Furnessed Future + Dev			
1 - Leicester Road (W)	1.0	13.61	0.50	B
2 - Leicester Road (E)	3.8	12.61	0.79	B
3 - Sacheverell Way	8.6	68.92	0.93	F
	2031 Furnessed Future			
1 - Leicester Road (W)	0.9	12.90	0.49	B
2 - Leicester Road (E)	4.4	14.30	0.82	B
3 - Sacheverell Way	9.4	76.73	0.94	F
	2031 Furnessed Future + Dev			
1 - Leicester Road (W)	1.1	14.11	0.52	B
2 - Leicester Road (E)	5.5	17.45	0.85	C
3 - Sacheverell Way	13.9	103.77	0.99	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	15.82	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Leicester Road (W)	Direct	To Calibrate and Validate to Observed Queues	-1350
2 - Leicester Road (E)	Direct	To Calibrate and Validate to Observed Queues	-650
3 - Sacheverell Way	Direct	To Calibrate and Validate to Observed Queues	-1100

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	839
2 - Leicester Road (E)	0.742	1446
3 - Sacheverell Way	0.705	899

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	221	100.000
2 - Leicester Road (E)		ONE HOUR	✓	933	100.000
3 - Sacheverell Way		ONE HOUR	✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	13	166	42
	2 - Leicester Road (E)	424	3	506
	3 - Sacheverell Way	52	354	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.45	11.88	0.8	B	203	304
2 - Leicester Road (E)	0.73	9.78	2.7	A	856	1284
3 - Sacheverell Way	0.80	31.86	3.8	D	373	559

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	166	42	266	640	0.260	165	366	0.0	0.3	7.558	A
2 - Leicester Road (E)	702	176	41	1415	0.496	698	390	0.0	1.0	5.079	A
3 - Sacheverell Way	306	76	329	666	0.459	302	410	0.0	0.8	9.846	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	199	50	319	601	0.331	198	438	0.3	0.5	8.935	A
2 - Leicester Road (E)	839	210	49	1409	0.595	837	468	1.0	1.5	6.373	A
3 - Sacheverell Way	365	91	395	620	0.588	363	491	0.8	1.4	13.918	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	243	61	386	551	0.441	242	535	0.5	0.8	11.618	B
2 - Leicester Road (E)	1027	257	60	1401	0.733	1022	568	1.5	2.7	9.542	A
3 - Sacheverell Way	447	112	482	559	0.800	439	600	1.4	3.5	28.336	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	243	61	392	546	0.445	243	538	0.8	0.8	11.883	B
2 - Leicester Road (E)	1027	257	61	1401	0.733	1027	575	2.7	2.7	9.778	A
3 - Sacheverell Way	447	112	484	557	0.803	446	603	3.5	3.8	31.857	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	199	50	329	594	0.335	200	443	0.8	0.5	9.178	A
2 - Leicester Road (E)	839	210	50	1409	0.595	844	479	2.7	1.5	6.532	A
3 - Sacheverell Way	365	91	398	618	0.591	374	496	3.8	1.5	15.320	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	166	42	271	637	0.261	167	369	0.5	0.4	7.684	A
2 - Leicester Road (E)	702	176	42	1415	0.496	704	396	1.5	1.0	5.166	A
3 - Sacheverell Way	306	76	332	664	0.460	308	414	1.5	0.9	10.222	B

2028 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	26.38	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	240	100.000
2 - Leicester Road (E)		ONE HOUR	✓	993	100.000
3 - Sacheverell Way		ONE HOUR	✓	435	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	47
	2 - Leicester Road (E)	470	3	520
	3 - Sacheverell Way	62	373	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.49	13.34	1.0	B	220	330
2 - Leicester Road (E)	0.78	12.10	3.6	B	911	1367
3 - Sacheverell Way	0.92	66.16	8.2	F	399	599

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	45	280	630	0.287	179	410	0.0	0.4	7.960	A
2 - Leicester Road (E)	748	187	47	1411	0.530	743	412	0.0	1.1	5.440	A
3 - Sacheverell Way	327	82	366	641	0.511	323	424	0.0	1.0	11.261	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	216	54	335	589	0.366	215	491	0.4	0.6	9.621	A
2 - Leicester Road (E)	893	223	56	1404	0.636	890	494	1.1	1.7	7.088	A
3 - Sacheverell Way	391	98	438	589	0.663	388	508	1.0	1.9	17.619	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	66	397	543	0.487	263	597	0.6	0.9	12.818	B
2 - Leicester Road (E)	1093	273	69	1395	0.784	1086	591	1.7	3.5	11.608	B
3 - Sacheverell Way	479	120	535	521	0.919	460	620	1.9	6.7	48.147	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	66	409	534	0.495	264	602	0.9	1.0	13.344	B
2 - Leicester Road (E)	1093	273	69	1394	0.784	1093	604	3.5	3.6	12.097	B
3 - Sacheverell Way	479	120	538	519	0.923	473	624	6.7	8.2	66.161	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	216	54	359	571	0.378	217	500	1.0	0.6	10.218	B
2 - Leicester Road (E)	893	223	57	1403	0.636	900	519	3.6	1.8	7.363	A
3 - Sacheverell Way	391	98	443	586	0.667	415	514	8.2	2.1	23.727	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	45	287	625	0.289	182	414	0.6	0.4	8.143	A
2 - Leicester Road (E)	748	187	48	1410	0.530	750	421	1.8	1.2	5.564	A
3 - Sacheverell Way	327	82	369	638	0.513	332	428	2.1	1.1	11.959	B

2028 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	27.41	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	243	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1002	100.000
3 - Sacheverell Way		ONE HOUR	✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	50
	2 - Leicester Road (E)	470	3	529
	3 - Sacheverell Way	62	376	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.50	13.61	1.0	B	223	334
2 - Leicester Road (E)	0.79	12.61	3.8	B	919	1379
3 - Sacheverell Way	0.93	68.92	8.6	F	402	603

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	46	282	629	0.291	181	410	0.0	0.4	8.029	A
2 - Leicester Road (E)	754	189	49	1409	0.535	750	414	0.0	1.2	5.510	A
3 - Sacheverell Way	330	82	366	641	0.515	326	433	0.0	1.0	11.335	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	55	338	587	0.372	218	491	0.4	0.6	9.741	A
2 - Leicester Road (E)	901	225	59	1402	0.643	898	496	1.2	1.8	7.225	A
3 - Sacheverell Way	394	98	438	589	0.668	390	519	1.0	1.9	17.836	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	67	400	541	0.495	266	597	0.6	1.0	13.054	B
2 - Leicester Road (E)	1103	276	72	1392	0.793	1096	594	1.8	3.7	12.046	B
3 - Sacheverell Way	482	121	535	521	0.925	462	633	1.9	7.0	49.432	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	67	412	532	0.503	267	602	1.0	1.0	13.613	B
2 - Leicester Road (E)	1103	276	73	1392	0.793	1103	606	3.7	3.8	12.606	B
3 - Sacheverell Way	482	121	538	519	0.929	476	637	7.0	8.6	68.918	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	55	363	568	0.384	220	500	1.0	0.6	10.386	B
2 - Leicester Road (E)	901	225	60	1401	0.643	908	523	3.8	1.9	7.529	A
3 - Sacheverell Way	394	98	443	586	0.672	419	525	8.6	2.2	24.550	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	46	289	623	0.294	184	415	0.6	0.4	8.220	A
2 - Leicester Road (E)	754	189	50	1409	0.536	757	423	1.9	1.2	5.637	A
3 - Sacheverell Way	330	82	369	638	0.517	334	438	2.2	1.1	12.059	B

2031 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	29.77	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	241	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1034	100.000
3 - Sacheverell Way		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	175	49
	2 - Leicester Road (E)	495	3	536
	3 - Sacheverell Way	65	362	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.49	12.90	0.9	B	221	332
2 - Leicester Road (E)	0.82	14.30	4.4	B	949	1423
3 - Sacheverell Way	0.94	76.73	9.4	F	392	588

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	45	271	636	0.285	180	431	0.0	0.4	7.868	A
2 - Leicester Road (E)	778	195	49	1409	0.552	774	402	0.0	1.2	5.712	A
3 - Sacheverell Way	321	80	385	627	0.513	317	438	0.0	1.0	11.533	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	217	54	325	596	0.363	216	517	0.4	0.6	9.458	A
2 - Leicester Road (E)	930	232	59	1402	0.663	927	482	1.2	2.0	7.650	A
3 - Sacheverell Way	384	96	462	573	0.670	380	524	1.0	1.9	18.408	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	383	553	0.480	264	627	0.6	0.9	12.408	B
2 - Leicester Road (E)	1138	285	72	1392	0.818	1129	575	2.0	4.2	13.473	B
3 - Sacheverell Way	470	118	563	502	0.937	448	639	1.9	7.4	53.344	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	395	544	0.488	265	634	0.9	0.9	12.903	B
2 - Leicester Road (E)	1138	285	73	1392	0.818	1138	588	4.2	4.4	14.305	B
3 - Sacheverell Way	470	118	567	499	0.942	462	644	7.4	9.4	76.733	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	217	54	353	576	0.376	218	528	0.9	0.6	10.106	B
2 - Leicester Road (E)	930	232	60	1401	0.663	939	511	4.4	2.1	8.059	A
3 - Sacheverell Way	384	96	468	569	0.675	413	531	9.4	2.2	26.735	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	45	279	631	0.288	182	437	0.6	0.4	8.046	A
2 - Leicester Road (E)	778	195	50	1409	0.553	782	411	2.1	1.3	5.862	A
3 - Sacheverell Way	321	80	389	624	0.515	326	442	2.2	1.1	12.306	B

2031 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	38.89	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	251	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1069	100.000
3 - Sacheverell Way		ONE HOUR	✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	174	60
	2 - Leicester Road (E)	494	3	572
	3 - Sacheverell Way	65	384	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	0.52	14.11	1.1	B	230	345
2 - Leicester Road (E)	0.85	17.45	5.5	C	981	1471
3 - Sacheverell Way	0.99	103.77	13.9	F	412	618

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	189	47	287	624	0.303	187	430	0.0	0.4	8.215	A
2 - Leicester Road (E)	805	201	57	1403	0.574	799	417	0.0	1.3	6.010	A
3 - Sacheverell Way	338	85	384	628	0.539	333	473	0.0	1.1	12.117	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	56	344	582	0.388	225	516	0.4	0.6	10.068	B
2 - Leicester Road (E)	961	240	69	1395	0.689	958	500	1.3	2.2	8.310	A
3 - Sacheverell Way	404	101	460	574	0.703	399	566	1.1	2.2	20.215	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	276	69	400	541	0.511	275	624	0.6	1.0	13.474	B
2 - Leicester Road (E)	1177	294	84	1383	0.851	1165	590	2.2	5.2	15.944	C
3 - Sacheverell Way	494	124	560	503	0.982	464	689	2.2	9.9	64.802	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	276	69	412	531	0.520	276	631	1.0	1.1	14.107	B
2 - Leicester Road (E)	1177	294	85	1383	0.851	1176	604	5.2	5.5	17.449	C
3 - Sacheverell Way	494	124	565	500	0.989	478	695	9.9	13.9	103.775	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	56	386	551	0.410	227	530	1.1	0.7	11.185	B
2 - Leicester Road (E)	961	240	70	1394	0.689	974	544	5.5	2.3	8.950	A
3 - Sacheverell Way	404	101	468	569	0.710	448	575	13.9	2.7	38.412	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	189	47	296	618	0.306	190	436	0.7	0.4	8.448	A
2 - Leicester Road (E)	805	201	58	1402	0.574	809	428	2.3	1.4	6.198	A
3 - Sacheverell Way	338	85	389	624	0.541	344	478	2.7	1.2	13.149	B

Appendix E Leicester Road/ Sacheverell Way Lane Simulation Sensitivity Test Model Outputs

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Base Model - Lane Simulation.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:33:31

»2024 Base, AM
»2024 Base, PM
»2028 Furnessed Future, AM
»2028 Furnessed Future, PM
»2028 Furnessed Future + Dev, AM
»2028 Furnessed Future + Dev, PM
»2031 Furnessed Future, AM
»2031 Furnessed Future, PM
»2031 Furnessed Future + Dev, AM
»2031 Furnessed Future + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2024 Base							
1 - Leicester Road (W)	0.4	5.17		A	0.4	4.70		A
2 - Leicester Road (E)	1.0	5.37		A	3.2	7.61		A
3 - Sacheverell Way	1.3	8.99		A	1.2	7.99		A
	[Lane Simulation] - 2028 Furnessed Future							
1 - Leicester Road (W)	0.7	5.41		A	0.4	4.72		A
2 - Leicester Road (E)	1.3	5.96		A	2.8	8.38		A
3 - Sacheverell Way	1.9	8.96		A	1.3	8.51		A
	[Lane Simulation] - 2028 Furnessed Future + Dev							
1 - Leicester Road (W)	0.7	5.51		A	0.4	4.69		A
2 - Leicester Road (E)	1.3	6.24		A	3.3	9.13		A
3 - Sacheverell Way	1.7	9.88		A	1.4	8.80		A
	[Lane Simulation] - 2031 Furnessed Future							
1 - Leicester Road (W)	0.7	5.83		A	0.4	4.76		A
2 - Leicester Road (E)	1.5	6.42		A	3.1	9.11		A
3 - Sacheverell Way	1.8	9.36		A	1.0	8.55		A
	[Lane Simulation] - 2031 Furnessed Future + Dev							
1 - Leicester Road (W)	0.7	5.88		A	0.4	4.72		A
2 - Leicester Road (E)	1.5	6.67		A	3.3	9.55		A
3 - Sacheverell Way	1.9	10.63		B	1.3	8.98		A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1722430217	55	2.10

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	6.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	2189
2 - Leicester Road (E)	0.742	2096
3 - Sacheverell Way	0.705	1999

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Leicester Road (W)	Evenly split	10.00
2 - Leicester Road (E)	Evenly split	10.00
3 - Sacheverell Way	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Leicester Road (W)	Entry	1	1	2	✓	7.00		0	99999	
			2	1, 3	✓	7.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
2 - Leicester Road (E)	Entry	1	1	3	✓	5.50		0	99999	
			2	1, 2	✓	5.50		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
3 - Sacheverell Way	Entry	1	1	1	✓	5.00		0	99999	
			2	2, 3	✓	5.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	Entry	1	1	0.372	1094
			2	0.372	1094
2 - Leicester Road (E)	Entry	1	1	0.371	1048
			2	0.371	1048
3 - Sacheverell Way	Entry	1	1	0.353	999
			2	0.353	999

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Leicester Road (W)	Leicester Road (E)	Sacheverell Way
1 - Leicester Road (W)	1	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
2 - Leicester Road (E)	1	1			✓
		2	✓	✓	
	2	1	✓	✓	✓
3 - Sacheverell Way	1	1	✓		
		2		✓	✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	300	100.000
2 - Leicester Road (E)		ONE HOUR	✓	588	100.000
3 - Sacheverell Way		ONE HOUR	✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	22	216	62
	2 - Leicester Road (E)	243	5	340
	3 - Sacheverell Way	33	442	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	5.17	0.4	A	275	412
2 - Leicester Road (E)	5.37	1.0	A	544	816
3 - Sacheverell Way	8.99	1.3	A	447	670

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	224	56	346	225	228	223	0.0	0.2	4.352	A
2 - Leicester Road (E)	440	110	65	437	449	505	0.0	0.7	4.645	A
3 - Sacheverell Way	370	92	202	367	363	300	0.0	0.9	6.069	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	66	407	263	266	262	0.2	0.3	4.605	A
2 - Leicester Road (E)	526	132	72	526	527	598	0.7	0.6	4.772	A
3 - Sacheverell Way	433	108	238	431	425	360	0.9	0.8	6.734	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	327	82	494	326	325	345	0.3	0.4	5.166	A
2 - Leicester Road (E)	674	168	91	672	653	730	0.6	1.0	5.288	A
3 - Sacheverell Way	529	132	312	527	524	451	0.8	1.3	7.873	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	335	84	509	336	332	329	0.4	0.4	5.120	A
2 - Leicester Road (E)	635	159	91	635	648	754	1.0	0.9	5.373	A
3 - Sacheverell Way	543	136	293	545	529	432	1.3	1.3	8.995	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	269	67	415	270	267	274	0.4	0.2	4.653	A
2 - Leicester Road (E)	542	135	78	543	533	608	0.9	0.7	4.893	A
3 - Sacheverell Way	438	110	251	438	439	370	1.3	0.9	7.403	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	229	57	350	228	226	230	0.2	0.3	4.354	A
2 - Leicester Road (E)	446	112	59	446	440	519	0.7	0.6	4.455	A
3 - Sacheverell Way	369	92	210	370	361	295	0.9	0.4	5.617	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	159	965	0.165	159	164	0.0	0.2	4.535	A
			2	1, 3	65	965	0.067	65	64	0.0	0.0	3.876	A
		2	1	(1, 2, 3)	224			224	229	0.0	0.0	0.000	A
	Exit	1	1		223			223	227	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	255	1024	0.249	252	261	0.0	0.5	4.854	A
			2	1, 2	185	1024	0.181	185	189	0.0	0.3	4.340	A
		2	1	(1, 2, 3)	440			440	452	0.0	0.0	0.009	A
	Exit	1	1		505			505	507	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	25	928	0.027	25	24	0.0	0.0	3.977	A
			2	2, 3	344	928	0.371	341	339	0.0	0.8	6.158	A
		2	1	(1, 2, 3)	370			369	366	0.0	0.1	0.043	A
	Exit	1	1		300			300	306	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	191	943	0.203	191	192	0.2	0.2	4.806	A
			2	1, 3	72	943	0.077	72	74	0.0	0.1	4.081	A
		2	1	(1, 2, 3)	264			264	266	0.0	0.0	0.000	A
	Exit	1	1		262			262	268	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	304	1021	0.298	305	303	0.5	0.3	5.002	A
			2	1, 2	222	1021	0.218	221	224	0.3	0.2	4.452	A
		2	1	(1, 2, 3)	526			526	527	0.0	0.0	0.006	A
	Exit	1	1		598			598	592	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	29	916	0.032	30	30	0.0	0.0	3.979	A
			2	2, 3	403	916	0.440	402	394	0.8	0.8	6.846	A
		2	1	(1, 2, 3)	433			433	425	0.1	0.0	0.102	A
	Exit	1	1		360			360	358	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	238	910	0.261	236	235	0.2	0.3	5.398	A
			2	1, 3	90	910	0.099	91	90	0.1	0.1	4.556	A
		2	1	(1, 2, 3)	327			327	325	0.0	0.0	0.000	A
	Exit	1	1		345			345	331	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	386	1014	0.380	382	375	0.3	0.8	5.607	A
			2	1, 2	288	1014	0.284	290	277	0.2	0.2	4.679	A
		2	1	(1, 2, 3)	674			674	654	0.0	0.0	0.078	A
	Exit	1	1		730			730	726	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	38	889	0.043	38	38	0.0	0.0	4.504	A
			2	2, 3	491	889	0.552	489	486	0.8	1.2	7.871	A
		2	1	(1, 2, 3)	529			529	526	0.0	0.1	0.237	A
	Exit	1	1		451			451	444	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	245	905	0.271	245	242	0.3	0.3	5.322	A
			2	1, 3	90	905	0.100	91	91	0.1	0.1	4.577	A
		2	1	(1, 2, 3)	335			335	332	0.0	0.0	0.000	A
	Exit	1	1		329			329	325	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	367	1014	0.361	367	379	0.8	0.4	5.722	A
			2	1, 2	269	1014	0.265	267	269	0.2	0.5	4.827	A
		2	1	(1, 2, 3)	635			635	647	0.0	0.0	0.027	A
	Exit	1	1		754			754	737	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	40	896	0.044	39	37	0.0	0.0	4.386	A
			2	2, 3	504	896	0.563	505	492	1.2	1.2	8.707	A
		2	1	(1, 2, 3)	543			545	529	0.1	0.1	0.590	A
	Exit	1	1		432			432	446	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	192	940	0.204	192	192	0.3	0.1	4.836	A
			2	1, 3	77	940	0.082	78	75	0.1	0.1	4.181	A
		2	1	(1, 2, 3)	269			269	267	0.0	0.0	0.000	A
	Exit	1	1		274			274	268	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	314	1019	0.308	315	309	0.4	0.5	5.217	A
			2	1, 2	228	1019	0.224	229	224	0.5	0.2	4.384	A
		2	1	(1, 2, 3)	542			542	533	0.0	0.0	0.027	A
	Exit	1	1		608			608	607	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	27	911	0.030	27	29	0.0	0.0	3.846	A
			2	2, 3	411	911	0.452	411	410	1.2	0.9	7.286	A
		2	1	(1, 2, 3)	438			438	438	0.1	0.0	0.349	A
	Exit	1	1		370			370	364	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	170	964	0.177	169	165	0.1	0.2	4.506	A
			2	1, 3	58	964	0.060	59	61	0.1	0.0	3.939	A
		2	1	(1, 2, 3)	229			229	226	0.0	0.0	0.000	A
	Exit	1	1		230			230	226	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	251	1026	0.244	250	249	0.5	0.3	4.630	A
			2	1, 2	196	1026	0.191	195	191	0.2	0.2	4.228	A
		2	1	(1, 2, 3)	446			446	439	0.0	0.0	0.002	A
	Exit	1	1		519			519	506	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	23	925	0.025	23	24	0.0	0.0	3.730	A
			2	2, 3	346	925	0.373	347	337	0.9	0.4	5.717	A
		2	1	(1, 2, 3)	369			369	359	0.0	0.0	0.041	A
	Exit	1	1		295			295	295	0.0	0.0	0.000	A

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	7.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	221	100.000
2 - Leicester Road (E)		ONE HOUR	✓	933	100.000
3 - Sacheverell Way		ONE HOUR	✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	13	166	42
	2 - Leicester Road (E)	424	3	506
	3 - Sacheverell Way	52	354	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	4.70	0.4	A	204	306
2 - Leicester Road (E)	7.61	3.2	A	858	1287
3 - Sacheverell Way	7.99	1.2	A	368	552

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	163	41	262	162	166	378	0.0	0.1	4.076	A
2 - Leicester Road (E)	709	177	39	702	684	385	0.0	1.4	5.343	A
3 - Sacheverell Way	302	75	337	304	306	404	0.0	0.3	5.674	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	200	50	311	201	195	443	0.1	0.1	4.142	A
2 - Leicester Road (E)	825	206	50	828	832	462	1.4	1.0	6.080	A
3 - Sacheverell Way	353	88	396	357	365	482	0.3	0.7	6.726	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	250	62	393	250	240	543	0.1	0.4	4.503	A
2 - Leicester Road (E)	1037	259	65	1026	1031	578	1.0	3.2	7.594	A
3 - Sacheverell Way	453	113	485	452	440	606	0.7	1.2	7.991	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	252	63	378	254	242	536	0.4	0.1	4.701	A
2 - Leicester Road (E)	1034	258	64	1034	1035	569	3.2	1.8	7.611	A
3 - Sacheverell Way	430	107	485	429	441	612	1.2	1.1	7.981	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	197	49	319	195	191	435	0.1	0.2	4.217	A
2 - Leicester Road (E)	830	208	45	825	842	469	1.8	1.6	5.868	A
3 - Sacheverell Way	368	92	388	366	359	482	1.1	0.7	6.169	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	164	41	268	164	162	379	0.2	0.2	3.888	A
2 - Leicester Road (E)	714	179	43	715	707	389	1.6	0.9	5.433	A
3 - Sacheverell Way	303	76	342	305	309	416	0.7	0.5	5.665	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	124	997	0.125	123	123	0.0	0.1	4.198	A
			2	1, 3	39	997	0.039	39	43	0.0	0.0	3.722	A
		2	1	(1, 2, 3)	163			163	166	0.0	0.0	0.000	A
	Exit	1	1		378			378	365	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	379	1034	0.366	374	367	0.0	0.8	5.493	A
			2	1, 2	331	1034	0.320	328	316	0.0	0.6	4.959	A
		2	1	(1, 2, 3)	709			709	689	0.0	0.0	0.101	A
	Exit	1	1		385			385	390	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	42	880	0.048	43	41	0.0	0.1	4.498	A
			2	2, 3	260	880	0.295	261	265	0.0	0.3	5.854	A
		2	1	(1, 2, 3)	302			302	307	0.0	0.0	0.003	A
	Exit	1	1		404			404	400	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	150	978	0.153	151	149	0.1	0.1	4.242	A
			2	1, 3	50	978	0.051	50	46	0.0	0.1	3.819	A
		2	1	(1, 2, 3)	200			200	195	0.0	0.0	0.000	A
	Exit	1	1		443			443	442	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	441	1029	0.429	442	448	0.8	0.6	6.334	A
			2	1, 2	384	1029	0.373	387	384	0.6	0.4	5.438	A
		2	1	(1, 2, 3)	825			825	830	0.0	0.0	0.167	A
	Exit	1	1		462			462	466	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	860	0.056	48	49	0.1	0.1	4.131	A
			2	2, 3	305	860	0.355	309	316	0.3	0.6	6.944	A
		2	1	(1, 2, 3)	353			354	366	0.0	0.0	0.162	A
	Exit	1	1		482			482	483	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	186	948	0.196	185	182	0.1	0.3	4.674	A
			2	1, 3	64	948	0.068	65	59	0.1	0.1	3.973	A
		2	1	(1, 2, 3)	250			250	241	0.0	0.0	0.000	A
	Exit	1	1		543			543	542	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	560	1024	0.546	556	557	0.6	1.4	7.258	A
			2	1, 2	473	1024	0.462	470	474	0.4	1.2	6.492	A
		2	1	(1, 2, 3)	1037			1032	1037	0.0	0.7	0.686	A
	Exit	1	1		578			578	567	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	62	828	0.075	62	58	0.1	0.1	4.780	A
			2	2, 3	389	828	0.470	390	382	0.6	0.9	8.212	A
		2	1	(1, 2, 3)	453			451	442	0.0	0.2	0.223	A
	Exit	1	1		606			606	603	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	189	953	0.198	191	181	0.3	0.1	4.837	A
			2	1, 3	64	953	0.067	64	61	0.1	0.1	4.297	A
		2	1	(1, 2, 3)	252			252	241	0.0	0.0	0.000	A
	Exit	1	1		536			536	538	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	562	1024	0.549	562	562	1.4	0.9	7.675	A
			2	1, 2	471	1024	0.459	471	474	1.2	0.7	6.418	A
		2	1	(1, 2, 3)	1034			1032	1032	0.7	0.2	0.523	A
	Exit	1	1		569			569	571	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	55	828	0.066	54	55	0.1	0.1	4.298	A
			2	2, 3	374	828	0.452	375	386	0.9	0.9	8.275	A
		2	1	(1, 2, 3)	430			429	441	0.2	0.1	0.207	A
	Exit	1	1		612			612	609	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	151	976	0.155	150	142	0.1	0.2	4.332	A
			2	1, 3	46	976	0.047	45	49	0.1	0.1	3.881	A
		2	1	(1, 2, 3)	197			197	191	0.0	0.0	0.000	A
	Exit	1	1		435			435	443	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	451	1031	0.438	447	457	0.9	0.9	5.916	A
			2	1, 2	378	1031	0.366	378	385	0.7	0.6	5.504	A
		2	1	(1, 2, 3)	830			829	841	0.2	0.1	0.146	A
	Exit	1	1		469			469	454	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	51	862	0.059	50	49	0.1	0.1	4.355	A
			2	2, 3	317	862	0.368	315	310	0.9	0.6	6.431	A
		2	1	(1, 2, 3)	368			368	358	0.1	0.0	0.028	A
	Exit	1	1		482			482	495	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	121	994	0.122	121	123	0.2	0.1	3.905	A
			2	1, 3	43	994	0.043	43	39	0.1	0.0	3.834	A
		2	1	(1, 2, 3)	164			164	162	0.0	0.0	0.000	A
	Exit	1	1		379			379	365	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	384	1032	0.372	383	388	0.9	0.5	5.632	A
			2	1, 2	330	1032	0.320	331	319	0.6	0.4	5.152	A
		2	1	(1, 2, 3)	714			714	704	0.1	0.0	0.025	A
	Exit	1	1		389			389	395	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	39	879	0.044	39	38	0.1	0.0	3.976	A
			2	2, 3	264	879	0.301	266	271	0.6	0.5	5.838	A
		2	1	(1, 2, 3)	303			303	309	0.0	0.0	0.057	A
	Exit	1	1		416			416	417	0.0	0.0	0.000	A

2028 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	6.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	353	100.000
2 - Leicester Road (E)		ONE HOUR	✓	662	100.000
3 - Sacheverell Way		ONE HOUR	✓	485	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	250	78
	2 - Leicester Road (E)	260	5	397
	3 - Sacheverell Way	34	451	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	5.41	0.7	A	335	503
2 - Leicester Road (E)	5.96	1.3	A	603	905
3 - Sacheverell Way	8.96	1.9	A	441	661

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	279	70	347	281	271	238	0.0	0.3	4.558	A
2 - Leicester Road (E)	497	124	81	499	497	547	0.0	0.6	4.689	A
3 - Sacheverell Way	365	91	219	366	362	361	0.0	0.6	5.999	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	346	86	418	345	326	279	0.3	0.5	4.941	A
2 - Leicester Road (E)	584	146	98	585	588	664	0.6	0.9	5.381	A
3 - Sacheverell Way	441	110	256	441	433	427	0.6	0.8	7.602	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	401	100	503	399	393	355	0.5	0.7	5.410	A
2 - Leicester Road (E)	729	182	121	724	703	781	0.9	1.3	5.845	A
3 - Sacheverell Way	531	133	325	533	535	520	0.8	1.5	8.573	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	391	98	485	390	390	345	0.7	0.6	5.335	A
2 - Leicester Road (E)	724	181	115	724	729	759	1.3	1.1	5.963	A
3 - Sacheverell Way	522	130	316	514	536	524	1.5	1.9	8.957	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	326	82	395	326	322	274	0.6	0.3	4.927	A
2 - Leicester Road (E)	585	146	98	584	581	624	1.1	1.2	5.284	A
3 - Sacheverell Way	422	106	246	424	446	436	1.9	0.8	7.651	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	67	341	269	271	239	0.3	0.4	4.476	A
2 - Leicester Road (E)	499	125	80	498	499	531	1.2	0.7	4.745	A
3 - Sacheverell Way	363	91	218	363	365	360	0.8	0.7	6.206	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	199	965	0.206	200	193	0.0	0.3	4.663	A
			2	1, 3	80	965	0.083	81	78	0.0	0.0	4.295	A
		2	1	(1, 2, 3)	279			279	272	0.0	0.0	0.000	A
	Exit	1	1		238			238	236	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	298	1018	0.292	298	301	0.0	0.4	4.978	A
			2	1, 2	200	1018	0.196	201	197	0.0	0.2	4.207	A
		2	1	(1, 2, 3)	497			497	500	0.0	0.0	0.017	A
	Exit	1	1		547			547	536	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	23	922	0.025	22	23	0.0	0.1	4.506	A
			2	2, 3	342	922	0.370	344	339	0.0	0.5	6.068	A
		2	1	(1, 2, 3)	365			365	365	0.0	0.0	0.033	A
	Exit	1	1		361			361	359	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	248	939	0.264	246	233	0.3	0.4	5.248	A
			2	1, 3	98	939	0.105	98	94	0.0	0.1	4.178	A
		2	1	(1, 2, 3)	346			346	327	0.0	0.0	0.000	A
	Exit	1	1		279			279	286	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	351	1011	0.347	352	351	0.4	0.5	5.664	A
			2	1, 2	233	1011	0.231	233	237	0.2	0.4	4.859	A
		2	1	(1, 2, 3)	584			584	589	0.0	0.0	0.043	A
	Exit	1	1		664			664	639	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	28	909	0.031	28	30	0.1	0.0	4.571	A
			2	2, 3	412	909	0.454	413	403	0.5	0.8	7.583	A
		2	1	(1, 2, 3)	441			440	434	0.0	0.0	0.224	A
	Exit	1	1		427			427	422	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	281	907	0.309	278	274	0.4	0.5	5.711	A
			2	1, 3	121	907	0.133	121	118	0.1	0.2	4.709	A
		2	1	(1, 2, 3)	401			401	393	0.0	0.0	0.000	A
	Exit	1	1		355			355	346	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	430	1003	0.429	427	418	0.5	0.9	6.369	A
			2	1, 2	299	1003	0.298	297	285	0.4	0.5	4.887	A
		2	1	(1, 2, 3)	729			729	705	0.0	0.0	0.081	A
	Exit	1	1		781			781	776	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	33	885	0.038	33	37	0.0	0.0	4.951	A
			2	2, 3	499	885	0.564	500	498	0.8	1.4	8.400	A
		2	1	(1, 2, 3)	531			532	538	0.0	0.1	0.407	A
	Exit	1	1		520			520	509	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	275	914	0.301	274	276	0.5	0.5	5.570	A
			2	1, 3	116	914	0.127	115	114	0.2	0.2	4.736	A
		2	1	(1, 2, 3)	391			391	390	0.0	0.0	0.009	A
	Exit	1	1		345			345	358	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	443	1005	0.441	441	433	0.9	0.9	6.414	A
			2	1, 2	282	1005	0.280	283	296	0.5	0.2	5.130	A
		2	1	(1, 2, 3)	724			724	729	0.0	0.0	0.074	A
	Exit	1	1		759			759	779	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	35	888	0.040	35	39	0.0	0.0	4.296	A
			2	2, 3	484	888	0.545	479	497	1.4	1.6	8.952	A
		2	1	(1, 2, 3)	522			520	537	0.1	0.2	0.332	A
	Exit	1	1		524			524	518	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	229	947	0.242	228	228	0.5	0.3	5.243	A
			2	1, 3	97	947	0.102	98	94	0.2	0.0	4.158	A
		2	1	(1, 2, 3)	326			326	320	0.0	0.0	0.000	A
	Exit	1	1		274			274	275	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	362	1012	0.358	361	357	0.9	0.7	5.585	A
			2	1, 2	223	1012	0.221	223	224	0.2	0.5	4.742	A
		2	1	(1, 2, 3)	585			585	581	0.0	0.0	0.028	A
	Exit	1	1		624			624	646	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	34	913	0.037	33	33	0.0	0.0	4.212	A
			2	2, 3	390	913	0.427	391	413	1.6	0.7	7.653	A
		2	1	(1, 2, 3)	422			423	442	0.2	0.0	0.273	A
	Exit	1	1		436			436	428	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	187	967	0.194	189	190	0.3	0.2	4.623	A
			2	1, 3	81	967	0.084	80	80	0.0	0.2	4.127	A
		2	1	(1, 2, 3)	268			268	271	0.0	0.0	0.000	A
	Exit	1	1		239			239	239	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	303	1018	0.297	302	303	0.7	0.4	4.979	A
			2	1, 2	196	1018	0.193	196	196	0.5	0.3	4.341	A
		2	1	(1, 2, 3)	499			499	497	0.0	0.0	0.018	A
	Exit	1	1		531			531	532	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	25	923	0.027	26	26	0.0	0.0	3.976	A
			2	2, 3	338	923	0.366	338	339	0.7	0.7	6.317	A
		2	1	(1, 2, 3)	363			363	365	0.0	0.0	0.052	A
	Exit	1	1		360			360	363	0.0	0.0	0.000	A

2028 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	7.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	240	100.000
2 - Leicester Road (E)		ONE HOUR	✓	993	100.000
3 - Sacheverell Way		ONE HOUR	✓	435	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	47
	2 - Leicester Road (E)	470	3	520
	3 - Sacheverell Way	62	373	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	4.72	0.4	A	224	336
2 - Leicester Road (E)	8.38	2.8	A	906	1360
3 - Sacheverell Way	8.51	1.3	A	395	592

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	179	45	274	180	180	417	0.0	0.2	4.064	A
2 - Leicester Road (E)	749	187	45	747	746	410	0.0	1.2	5.756	A
3 - Sacheverell Way	315	79	378	314	318	414	0.0	0.6	5.713	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	222	56	330	224	218	492	0.2	0.2	4.296	A
2 - Leicester Road (E)	888	222	57	893	891	497	1.2	1.3	6.203	A
3 - Sacheverell Way	389	97	433	388	391	516	0.6	0.7	6.845	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	426	262	262	600	0.2	0.4	4.716	A
2 - Leicester Road (E)	1105	276	65	1097	1095	623	1.3	2.8	8.382	A
3 - Sacheverell Way	488	122	539	486	467	623	0.7	1.3	8.512	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	261	65	408	261	267	603	0.4	0.4	4.693	A
2 - Leicester Road (E)	1081	270	72	1090	1095	597	2.8	2.2	8.340	A
3 - Sacheverell Way	480	120	536	475	481	626	1.3	1.3	8.441	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	219	55	325	218	215	495	0.4	0.3	4.243	A
2 - Leicester Road (E)	885	221	58	896	904	485	2.2	1.1	6.631	A
3 - Sacheverell Way	380	95	440	380	386	514	1.3	0.7	6.560	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	197	49	275	197	187	390	0.3	0.3	4.175	A
2 - Leicester Road (E)	730	183	49	726	737	423	1.1	1.3	5.596	A
3 - Sacheverell Way	316	79	351	315	326	425	0.7	0.5	5.919	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	135	992	0.136	136	132	0.0	0.1	4.148	A
			2	1, 3	45	992	0.045	45	48	0.0	0.0	3.832	A
		2	1	(1, 2, 3)	179			179	181	0.0	0.0	0.000	A
	Exit	1	1		417			417	408	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	381	1031	0.370	382	391	0.0	0.6	5.972	A
			2	1, 2	367	1031	0.356	365	355	0.0	0.6	5.342	A
		2	1	(1, 2, 3)	749			749	751	0.0	0.0	0.090	A
	Exit	1	1		410			410	409	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	43	866	0.050	43	43	0.0	0.0	4.485	A
			2	2, 3	272	866	0.314	270	275	0.0	0.6	5.889	A
		2	1	(1, 2, 3)	315			315	321	0.0	0.0	0.015	A
	Exit	1	1		414			414	427	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	166	972	0.171	167	160	0.1	0.1	4.351	A
			2	1, 3	56	972	0.057	57	58	0.0	0.1	4.144	A
		2	1	(1, 2, 3)	222			222	218	0.0	0.0	0.000	A
	Exit	1	1		492			492	493	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	472	1027	0.460	475	466	0.6	0.6	6.278	A
			2	1, 2	416	1027	0.405	418	426	0.6	0.7	5.783	A
		2	1	(1, 2, 3)	888			889	892	0.0	0.0	0.165	A
	Exit	1	1		497			497	498	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	60	846	0.071	60	55	0.0	0.1	4.644	A
			2	2, 3	328	846	0.388	328	336	0.6	0.6	7.091	A
		2	1	(1, 2, 3)	389			389	391	0.0	0.0	0.101	A
	Exit	1	1		516			516	509	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	200	936	0.213	198	196	0.1	0.3	4.880	A
			2	1, 3	65	936	0.070	65	66	0.1	0.1	4.222	A
		2	1	(1, 2, 3)	265			265	263	0.0	0.0	0.000	A
	Exit	1	1		600			600	602	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	583	1024	0.569	577	573	0.6	1.4	7.811	A
			2	1, 2	525	1024	0.513	520	521	0.7	1.2	7.061	A
		2	1	(1, 2, 3)	1105			1107	1100	0.0	0.2	0.933	A
	Exit	1	1		623			623	599	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	65	809	0.080	64	67	0.1	0.1	4.739	A
			2	2, 3	423	809	0.522	422	400	0.6	1.1	8.605	A
		2	1	(1, 2, 3)	488			487	469	0.0	0.1	0.428	A
	Exit	1	1		623			623	622	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	189	942	0.200	189	193	0.3	0.3	4.908	A
			2	1, 3	73	942	0.077	72	74	0.1	0.1	4.127	A
		2	1	(1, 2, 3)	261			261	266	0.0	0.0	0.000	A
	Exit	1	1		603			603	607	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	568	1021	0.557	571	574	1.4	1.3	8.033	A
			2	1, 2	515	1021	0.505	519	521	1.2	0.5	6.676	A
		2	1	(1, 2, 3)	1081			1084	1092	0.2	0.3	0.956	A
	Exit	1	1		597			597	607	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	72	810	0.089	70	71	0.1	0.2	4.881	A
			2	2, 3	408	810	0.503	405	411	1.1	1.1	8.732	A
		2	1	(1, 2, 3)	480			479	482	0.1	0.0	0.305	A
	Exit	1	1		626			626	629	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	161	973	0.165	160	159	0.3	0.2	4.407	A
			2	1, 3	58	973	0.060	58	56	0.1	0.1	3.777	A
		2	1	(1, 2, 3)	219			219	214	0.0	0.0	0.000	A
	Exit	1	1		495			495	489	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	460	1026	0.449	468	478	1.3	0.7	6.779	A
			2	1, 2	426	1026	0.415	428	425	0.5	0.4	5.974	A
		2	1	(1, 2, 3)	885			886	900	0.3	0.0	0.246	A
	Exit	1	1		485			485	493	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	57	844	0.067	57	55	0.2	0.1	4.839	A
			2	2, 3	324	844	0.384	323	331	1.1	0.7	6.810	A
		2	1	(1, 2, 3)	380			380	384	0.0	0.0	0.029	A
	Exit	1	1		514			514	522	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	148	992	0.149	148	140	0.2	0.2	4.346	A
			2	1, 3	49	992	0.050	49	48	0.1	0.1	3.671	A
		2	1	(1, 2, 3)	197			197	187	0.0	0.0	0.000	A
	Exit	1	1		390			390	404	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	392	1030	0.380	386	389	0.7	0.9	5.868	A
			2	1, 2	338	1030	0.328	340	347	0.4	0.3	5.180	A
		2	1	(1, 2, 3)	730			730	737	0.0	0.0	0.058	A
	Exit	1	1		423			423	422	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	43	876	0.049	42	46	0.1	0.1	4.248	A
			2	2, 3	274	876	0.313	273	280	0.7	0.4	6.190	A
		2	1	(1, 2, 3)	316			316	325	0.0	0.0	0.004	A
	Exit	1	1		425			425	424	0.0	0.0	0.000	A

2028 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	7.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	352	100.000
2 - Leicester Road (E)		ONE HOUR	✓	671	100.000
3 - Sacheverell Way		ONE HOUR	✓	508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	249	78
	2 - Leicester Road (E)	259	5	407
	3 - Sacheverell Way	40	468	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	5.51	0.7	A	324	487
2 - Leicester Road (E)	6.24	1.3	A	619	928
3 - Sacheverell Way	9.88	1.7	A	469	703

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	269	67	352	269	268	237	0.0	0.3	4.492	A
2 - Leicester Road (E)	497	124	80	495	499	540	0.0	0.7	4.889	A
3 - Sacheverell Way	378	94	214	375	381	362	0.0	0.7	6.126	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	311	78	426	312	312	294	0.3	0.4	4.749	A
2 - Leicester Road (E)	621	155	94	620	604	643	0.7	1.0	5.294	A
3 - Sacheverell Way	459	115	260	459	459	454	0.7	0.8	7.016	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	384	96	521	382	385	362	0.4	0.7	5.287	A
2 - Leicester Road (E)	743	186	110	745	744	793	1.0	1.2	6.083	A
3 - Sacheverell Way	563	141	323	559	560	531	0.8	1.7	9.610	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	382	96	524	384	389	360	0.7	0.5	5.511	A
2 - Leicester Road (E)	753	188	110	752	745	798	1.2	1.3	6.236	A
3 - Sacheverell Way	564	141	317	567	564	546	1.7	1.3	9.884	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	325	81	425	324	317	302	0.5	0.5	4.772	A
2 - Leicester Road (E)	600	150	99	599	604	650	1.3	1.0	5.296	A
3 - Sacheverell Way	460	115	268	459	455	431	1.3	1.0	7.568	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	275	69	364	275	270	241	0.5	0.3	4.566	A
2 - Leicester Road (E)	498	124	79	500	505	560	1.0	0.6	4.821	A
3 - Sacheverell Way	389	97	216	389	384	362	1.0	0.7	6.292	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	189	963	0.196	188	189	0.0	0.2	4.611	A
			2	1, 3	81	963	0.084	80	79	0.0	0.1	4.211	A
		2	1	(1, 2, 3)	269			269	269	0.0	0.0	0.000	A
	Exit	1	1		237			237	242	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	305	1018	0.299	303	303	0.0	0.5	5.236	A
			2	1, 2	193	1018	0.189	192	196	0.0	0.2	4.330	A
		2	1	(1, 2, 3)	497			497	502	0.0	0.0	0.012	A
	Exit	1	1		540			540	544	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	26	924	0.029	27	29	0.0	0.0	4.033	A
			2	2, 3	351	924	0.380	348	352	0.0	0.7	6.253	A
		2	1	(1, 2, 3)	378			378	383	0.0	0.0	0.042	A
	Exit	1	1		362			362	362	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	218	936	0.233	218	219	0.2	0.3	5.010	A
			2	1, 3	93	936	0.100	94	93	0.1	0.1	4.133	A
		2	1	(1, 2, 3)	311			311	312	0.0	0.0	0.000	A
	Exit	1	1		294			294	292	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	386	1013	0.381	386	370	0.5	0.6	5.609	A
			2	1, 2	235	1013	0.232	235	234	0.2	0.4	4.625	A
		2	1	(1, 2, 3)	621			622	605	0.0	0.0	0.070	A
	Exit	1	1		643			643	646	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	907	0.040	37	36	0.0	0.0	4.325	A
			2	2, 3	422	907	0.465	422	423	0.7	0.8	7.123	A
		2	1	(1, 2, 3)	459			459	460	0.0	0.0	0.110	A
	Exit	1	1		454			454	438	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	273	900	0.303	272	273	0.3	0.5	5.592	A
			2	1, 3	111	900	0.124	110	112	0.1	0.2	4.541	A
		2	1	(1, 2, 3)	384			384	387	0.0	0.0	0.001	A
	Exit	1	1		362			362	359	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	448	1007	0.445	449	451	0.6	0.8	6.400	A
			2	1, 2	295	1007	0.293	295	293	0.4	0.4	5.280	A
		2	1	(1, 2, 3)	743			743	745	0.0	0.0	0.127	A
	Exit	1	1		793			793	795	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	44	885	0.050	43	44	0.0	0.1	4.469	A
			2	2, 3	518	885	0.585	516	516	0.8	1.5	9.282	A
		2	1	(1, 2, 3)	563			561	563	0.0	0.2	0.694	A
	Exit	1	1		531			531	535	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	273	899	0.303	274	277	0.5	0.3	5.856	A
			2	1, 3	109	899	0.122	110	111	0.2	0.2	4.647	A
		2	1	(1, 2, 3)	382			382	388	0.0	0.0	0.000	A
	Exit	1	1		360			360	358	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	462	1007	0.459	461	454	0.8	1.0	6.694	A
			2	1, 2	291	1007	0.289	291	291	0.4	0.4	4.993	A
		2	1	(1, 2, 3)	753			753	746	0.0	0.0	0.211	A
	Exit	1	1		798			798	801	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	888	0.054	48	45	0.1	0.1	4.339	A
			2	2, 3	516	888	0.581	519	518	1.5	1.1	9.380	A
		2	1	(1, 2, 3)	564			564	562	0.2	0.1	0.916	A
	Exit	1	1		546			546	538	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	226	936	0.241	225	219	0.3	0.4	5.013	A
			2	1, 3	99	936	0.106	99	99	0.2	0.1	4.235	A
		2	1	(1, 2, 3)	325			325	317	0.0	0.0	0.000	A
	Exit	1	1		302			302	293	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	358	1011	0.354	356	367	1.0	0.7	5.667	A
			2	1, 2	243	1011	0.240	244	237	0.4	0.3	4.592	A
		2	1	(1, 2, 3)	600			601	602	0.0	0.0	0.055	A
	Exit	1	1		650			650	641	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	39	905	0.043	39	37	0.1	0.0	4.300	A
			2	2, 3	420	905	0.464	420	417	1.1	0.8	7.560	A
		2	1	(1, 2, 3)	460			459	453	0.1	0.1	0.270	A
	Exit	1	1		431			431	442	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	197	959	0.205	197	190	0.4	0.2	4.758	A
			2	1, 3	79	959	0.082	79	80	0.1	0.1	4.111	A
		2	1	(1, 2, 3)	275			275	269	0.0	0.0	0.000	A
	Exit	1	1		241			241	243	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	302	1019	0.296	303	308	0.7	0.3	5.042	A
			2	1, 2	196	1019	0.192	196	198	0.3	0.3	4.466	A
		2	1	(1, 2, 3)	498			498	504	0.0	0.0	0.007	A
	Exit	1	1		560			560	549	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	30	923	0.032	29	30	0.0	0.1	3.998	A
			2	2, 3	359	923	0.389	360	354	0.8	0.6	6.422	A
		2	1	(1, 2, 3)	389			388	383	0.1	0.1	0.080	A
	Exit	1	1		362			362	368	0.0	0.0	0.000	A

2028 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	8.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	243	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1002	100.000
3 - Sacheverell Way		ONE HOUR	✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	50
	2 - Leicester Road (E)	470	3	529
	3 - Sacheverell Way	62	376	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	4.69	0.4	A	223	334
2 - Leicester Road (E)	9.13	3.3	A	916	1373
3 - Sacheverell Way	8.80	1.4	A	410	614

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	179	45	291	179	183	393	0.0	0.2	4.183	A
2 - Leicester Road (E)	748	187	50	748	749	420	0.0	1.4	5.794	A
3 - Sacheverell Way	336	84	348	336	329	451	0.0	0.5	5.878	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	209	52	356	208	222	490	0.2	0.3	4.372	A
2 - Leicester Road (E)	880	220	52	880	887	512	1.4	1.4	6.559	A
3 - Sacheverell Way	415	104	430	416	395	502	0.5	0.8	6.470	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	265	66	422	267	270	583	0.3	0.3	4.626	A
2 - Leicester Road (E)	1101	275	70	1094	1085	620	1.4	3.3	8.147	A
3 - Sacheverell Way	493	123	517	489	488	647	0.8	1.4	7.685	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	278	69	438	279	267	604	0.3	0.2	4.688	A
2 - Leicester Road (E)	1107	277	69	1104	1113	648	3.3	2.8	9.132	A
3 - Sacheverell Way	507	127	538	504	486	635	1.4	1.4	8.803	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	57	325	226	224	478	0.2	0.4	4.388	A
2 - Leicester Road (E)	910	228	59	915	913	492	2.8	1.6	6.668	A
3 - Sacheverell Way	376	94	424	379	392	550	1.4	0.7	6.852	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	179	45	283	181	183	413	0.4	0.2	4.125	A
2 - Leicester Road (E)	747	187	48	741	758	416	1.6	1.4	5.447	A
3 - Sacheverell Way	331	83	364	332	334	425	0.7	0.4	6.015	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	129	986	0.131	129	135	0.0	0.1	4.313	A
			2	1, 3	50	986	0.051	50	48	0.0	0.0	3.813	A
		2	1	(1, 2, 3)	179			179	184	0.0	0.0	0.000	A
	Exit	1	1		393			393	404	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	411	1029	0.400	412	400	0.0	0.8	6.124	A
			2	1, 2	337	1029	0.327	336	349	0.0	0.6	5.298	A
		2	1	(1, 2, 3)	748			748	755	0.0	0.0	0.061	A
	Exit	1	1		420			420	421	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	877	0.054	47	46	0.0	0.1	4.483	A
			2	2, 3	289	877	0.329	289	283	0.0	0.4	6.094	A
		2	1	(1, 2, 3)	336			336	331	0.0	0.0	0.012	A
	Exit	1	1		451			451	437	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	157	962	0.163	157	161	0.1	0.2	4.616	A
			2	1, 3	53	962	0.055	52	61	0.0	0.1	3.725	A
		2	1	(1, 2, 3)	209			209	223	0.0	0.0	0.000	A
	Exit	1	1		490			490	490	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	463	1029	0.450	463	467	0.8	0.8	6.675	A
			2	1, 2	417	1029	0.406	418	420	0.6	0.6	5.762	A
		2	1	(1, 2, 3)	880			880	887	0.0	0.0	0.324	A
	Exit	1	1		512			512	502	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	62	848	0.073	61	57	0.1	0.1	4.535	A
			2	2, 3	353	848	0.417	355	338	0.4	0.7	6.763	A
		2	1	(1, 2, 3)	415			415	397	0.0	0.0	0.031	A
	Exit	1	1		502			502	513	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	195	937	0.208	198	195	0.2	0.2	4.828	A
			2	1, 3	70	937	0.075	70	75	0.1	0.1	4.094	A
		2	1	(1, 2, 3)	265			265	270	0.0	0.0	0.000	A
	Exit	1	1		583			583	586	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	593	1022	0.580	593	583	0.8	1.5	7.649	A
			2	1, 2	504	1022	0.493	501	501	0.6	1.4	6.821	A
		2	1	(1, 2, 3)	1101			1097	1091	0.0	0.5	0.884	A
	Exit	1	1		620			620	616	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	70	817	0.085	69	71	0.1	0.1	4.608	A
			2	2, 3	423	817	0.518	420	417	0.7	1.3	8.050	A
		2	1	(1, 2, 3)	493			493	491	0.0	0.0	0.129	A
	Exit	1	1		647			647	641	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	208	931	0.224	210	194	0.2	0.2	4.889	A
			2	1, 3	69	931	0.075	69	73	0.1	0.1	4.154	A
		2	1	(1, 2, 3)	278			278	267	0.0	0.0	0.000	A
	Exit	1	1		604			604	612	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	586	1022	0.573	580	584	1.5	1.7	8.497	A
			2	1, 2	519	1022	0.508	524	529	1.4	0.7	7.156	A
		2	1	(1, 2, 3)	1107			1105	1111	0.5	0.4	1.278	A
	Exit	1	1		648			648	614	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	68	809	0.084	68	68	0.1	0.1	4.957	A
			2	2, 3	438	809	0.541	436	418	1.3	1.2	9.002	A
		2	1	(1, 2, 3)	507			506	485	0.0	0.2	0.355	A
	Exit	1	1		635			635	640	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	167	973	0.172	167	165	0.2	0.3	4.559	A
			2	1, 3	59	973	0.061	59	59	0.1	0.1	3.907	A
		2	1	(1, 2, 3)	226			226	224	0.0	0.0	0.000	A
	Exit	1	1		478			478	494	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	500	1026	0.487	504	486	1.7	0.8	6.888	A
			2	1, 2	412	1026	0.401	412	427	0.7	0.8	5.844	A
		2	1	(1, 2, 3)	910			912	910	0.4	0.0	0.287	A
	Exit	1	1		492			492	504	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	57	850	0.067	56	55	0.1	0.1	4.985	A
			2	2, 3	320	850	0.376	324	337	1.2	0.5	7.077	A
		2	1	(1, 2, 3)	376			376	390	0.2	0.0	0.094	A
	Exit	1	1		550			550	531	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	131	989	0.133	133	134	0.3	0.1	4.209	A
			2	1, 3	48	989	0.048	48	49	0.1	0.0	3.899	A
		2	1	(1, 2, 3)	179			179	182	0.0	0.0	0.000	A
	Exit	1	1		413			413	419	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	390	1030	0.379	388	398	0.8	0.6	5.630	A
			2	1, 2	357	1030	0.346	353	360	0.8	0.8	5.164	A
		2	1	(1, 2, 3)	747			747	757	0.0	0.0	0.042	A
	Exit	1	1		416			416	420	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	52	871	0.060	52	50	0.1	0.0	4.501	A
			2	2, 3	278	871	0.320	280	284	0.5	0.4	6.254	A
		2	1	(1, 2, 3)	331			331	333	0.0	0.0	0.021	A
	Exit	1	1		425			425	436	0.0	0.0	0.000	A

2031 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	7.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	390	100.000
2 - Leicester Road (E)		ONE HOUR	✓	688	100.000
3 - Sacheverell Way		ONE HOUR	✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	273	90
	2 - Leicester Road (E)	257	5	426
	3 - Sacheverell Way	34	467	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	5.83	0.7	A	358	537
2 - Leicester Road (E)	6.42	1.5	A	636	954
3 - Sacheverell Way	9.36	1.8	A	453	680

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	300	75	353	299	292	232	0.0	0.4	4.635	A
2 - Leicester Road (E)	518	129	91	518	527	560	0.0	0.7	5.033	A
3 - Sacheverell Way	378	95	209	376	376	400	0.0	0.7	6.230	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	350	88	418	350	349	281	0.4	0.5	4.865	A
2 - Leicester Road (E)	636	159	102	634	626	667	0.7	1.1	5.513	A
3 - Sacheverell Way	442	111	257	443	447	479	0.7	0.8	7.150	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	431	108	494	430	431	355	0.5	0.7	5.573	A
2 - Leicester Road (E)	761	190	125	763	754	799	1.1	1.4	6.418	A
3 - Sacheverell Way	525	131	330	519	534	558	0.8	1.8	8.853	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	415	104	518	415	421	353	0.7	0.7	5.825	A
2 - Leicester Road (E)	773	193	124	767	768	809	1.4	1.5	6.188	A
3 - Sacheverell Way	546	136	321	549	554	569	1.8	1.3	9.360	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	348	87	434	348	354	287	0.7	0.5	4.934	A
2 - Leicester Road (E)	623	156	99	623	623	684	1.5	1.1	5.614	A
3 - Sacheverell Way	468	117	255	465	453	467	1.3	1.0	7.244	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	304	76	338	306	294	243	0.5	0.2	4.652	A
2 - Leicester Road (E)	506	127	92	508	522	552	1.1	0.5	4.966	A
3 - Sacheverell Way	360	90	223	358	377	377	1.0	0.7	6.166	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	209	963	0.217	208	204	0.0	0.3	4.760	A
			2	1, 3	91	963	0.094	91	88	0.0	0.1	4.345	A
		2	1	(1, 2, 3)	300			300	293	0.0	0.0	0.000	A
	Exit	1	1		232			232	241	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	328	1014	0.323	329	328	0.0	0.5	5.306	A
			2	1, 2	191	1014	0.188	189	199	0.0	0.3	4.548	A
		2	1	(1, 2, 3)	518			518	530	0.0	0.0	0.016	A
	Exit	1	1		560			560	557	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	26	926	0.028	26	26	0.0	0.0	3.943	A
			2	2, 3	352	926	0.380	350	351	0.0	0.7	6.365	A
		2	1	(1, 2, 3)	378			378	379	0.0	0.0	0.030	A
	Exit	1	1		400			400	396	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	248	938	0.264	248	244	0.3	0.4	5.056	A
			2	1, 3	102	938	0.109	102	105	0.1	0.1	4.415	A
		2	1	(1, 2, 3)	350			350	350	0.0	0.0	0.000	A
	Exit	1	1		281			281	287	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	403	1010	0.399	399	388	0.5	0.8	5.875	A
			2	1, 2	232	1010	0.230	235	238	0.3	0.2	4.785	A
		2	1	(1, 2, 3)	636			635	627	0.0	0.0	0.055	A
	Exit	1	1		667			667	666	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	29	909	0.032	30	30	0.0	0.0	4.391	A
			2	2, 3	413	909	0.455	414	417	0.7	0.8	7.199	A
		2	1	(1, 2, 3)	442			442	447	0.0	0.0	0.139	A
	Exit	1	1		479			479	469	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	306	910	0.336	305	303	0.4	0.5	5.972	A
			2	1, 3	125	910	0.138	125	128	0.1	0.1	4.619	A
		2	1	(1, 2, 3)	431			431	431	0.0	0.0	0.000	A
	Exit	1	1		355			355	351	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	461	1002	0.460	464	463	0.8	0.9	6.869	A
			2	1, 2	300	1002	0.300	299	291	0.2	0.5	5.185	A
		2	1	(1, 2, 3)	761			761	755	0.0	0.0	0.202	A
	Exit	1	1		799			799	808	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	33	883	0.037	33	36	0.0	0.0	4.247	A
			2	2, 3	491	883	0.556	487	498	0.8	1.7	8.685	A
		2	1	(1, 2, 3)	525			524	538	0.0	0.1	0.463	A
	Exit	1	1		558			558	560	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	290	901	0.322	291	292	0.5	0.4	6.216	A
			2	1, 3	124	901	0.138	124	129	0.1	0.3	4.935	A
		2	1	(1, 2, 3)	415			415	421	0.0	0.0	0.001	A
	Exit	1	1		353			353	354	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	477	1002	0.476	474	473	0.9	1.0	6.404	A
			2	1, 2	296	1002	0.295	293	295	0.5	0.5	5.432	A
		2	1	(1, 2, 3)	773			772	768	0.0	0.0	0.162	A
	Exit	1	1		809			809	815	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	38	886	0.043	38	36	0.0	0.1	4.359	A
			2	2, 3	509	886	0.574	511	518	1.7	1.1	9.093	A
		2	1	(1, 2, 3)	546			547	552	0.1	0.1	0.569	A
	Exit	1	1		569			569	573	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	249	933	0.267	250	249	0.4	0.3	5.155	A
			2	1, 3	100	933	0.107	99	105	0.3	0.1	4.402	A
		2	1	(1, 2, 3)	348			348	353	0.0	0.0	0.000	A
	Exit	1	1		287			287	283	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	391	1011	0.386	392	388	1.0	0.7	6.023	A
			2	1, 2	232	1011	0.230	232	235	0.5	0.5	4.828	A
		2	1	(1, 2, 3)	623			623	622	0.0	0.0	0.048	A
	Exit	1	1		684			684	677	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	36	909	0.040	36	30	0.1	0.1	3.914	A
			2	2, 3	432	909	0.475	429	423	1.1	0.9	7.263	A
		2	1	(1, 2, 3)	468			468	452	0.1	0.0	0.215	A
	Exit	1	1		467			467	470	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	212	968	0.219	214	206	0.3	0.1	4.846	A
			2	1, 3	92	968	0.095	92	88	0.1	0.1	4.195	A
		2	1	(1, 2, 3)	304			304	293	0.0	0.0	0.000	A
	Exit	1	1		243			243	244	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	303	1014	0.299	305	320	0.7	0.3	5.161	A
			2	1, 2	203	1014	0.200	203	202	0.5	0.2	4.621	A
		2	1	(1, 2, 3)	506			506	519	0.0	0.0	0.016	A
	Exit	1	1		552			552	562	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	23	921	0.024	22	25	0.1	0.0	3.917	A
			2	2, 3	338	921	0.367	335	352	0.9	0.7	6.264	A
		2	1	(1, 2, 3)	360			360	376	0.0	0.0	0.056	A
	Exit	1	1		377			377	387	0.0	0.0	0.000	A

2031 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	8.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	241	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1034	100.000
3 - Sacheverell Way		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	175	49
	2 - Leicester Road (E)	495	3	536
	3 - Sacheverell Way	65	362	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	4.76	0.4	A	223	335
2 - Leicester Road (E)	9.11	3.1	A	949	1424
3 - Sacheverell Way	8.55	1.0	A	394	591

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	184	46	278	184	183	437	0.0	0.2	4.192	A
2 - Leicester Road (E)	789	197	50	788	777	411	0.0	1.5	5.862	A
3 - Sacheverell Way	327	82	393	322	321	445	0.0	0.6	5.882	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	219	55	330	218	216	516	0.2	0.3	4.253	A
2 - Leicester Road (E)	929	232	62	930	932	487	1.5	1.5	6.864	A
3 - Sacheverell Way	385	96	458	389	376	534	0.6	0.5	6.775	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	266	67	412	268	262	636	0.3	0.3	4.756	A
2 - Leicester Road (E)	1152	288	77	1151	1136	603	1.5	3.1	8.905	A
3 - Sacheverell Way	477	119	568	480	471	659	0.5	1.0	8.549	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	259	65	393	258	259	642	0.3	0.4	4.547	A
2 - Leicester Road (E)	1140	285	73	1141	1138	577	3.1	3.0	9.111	A
3 - Sacheverell Way	462	116	572	462	464	642	1.0	0.9	8.226	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	228	57	339	228	225	512	0.4	0.2	4.377	A
2 - Leicester Road (E)	910	227	63	909	933	505	3.0	1.7	6.716	A
3 - Sacheverell Way	393	98	459	392	385	513	0.9	0.8	6.848	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	182	45	279	181	183	431	0.2	0.3	4.083	A
2 - Leicester Road (E)	777	194	52	780	776	408	1.7	1.0	5.783	A
3 - Sacheverell Way	322	80	386	324	319	447	0.8	0.4	5.890	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	134	991	0.135	134	130	0.0	0.1	4.305	A
			2	1, 3	50	991	0.050	50	53	0.0	0.0	3.916	A
		2	1	(1, 2, 3)	184			184	184	0.0	0.0	0.000	A
	Exit	1	1		437			437	434	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	409	1029	0.398	409	401	0.0	0.8	5.956	A
			2	1, 2	379	1029	0.368	379	375	0.0	0.7	5.523	A
		2	1	(1, 2, 3)	789			789	783	0.0	0.1	0.116	A
	Exit	1	1		411			411	406	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	861	0.055	47	47	0.0	0.0	4.698	A
			2	2, 3	279	861	0.325	275	274	0.0	0.6	6.066	A
		2	1	(1, 2, 3)	327			327	323	0.0	0.0	0.015	A
	Exit	1	1		445			445	440	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	158	971	0.162	156	157	0.1	0.2	4.353	A
			2	1, 3	62	971	0.063	62	59	0.0	0.0	3.981	A
		2	1	(1, 2, 3)	219			219	217	0.0	0.0	0.000	A
	Exit	1	1		516			516	517	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	487	1025	0.476	489	486	0.8	0.7	6.687	A
			2	1, 2	442	1025	0.431	441	446	0.7	0.8	6.380	A
		2	1	(1, 2, 3)	929			929	932	0.1	0.0	0.329	A
	Exit	1	1		487			487	479	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	61	838	0.073	62	58	0.0	0.1	4.766	A
			2	2, 3	324	838	0.387	327	319	0.6	0.5	7.055	A
		2	1	(1, 2, 3)	385			385	376	0.0	0.0	0.070	A
	Exit	1	1		534			534	528	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	190	941	0.202	191	190	0.2	0.2	4.946	A
			2	1, 3	76	941	0.081	77	72	0.0	0.1	4.257	A
		2	1	(1, 2, 3)	266			266	262	0.0	0.0	0.000	A
	Exit	1	1		636			636	631	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	602	1019	0.591	604	591	0.7	1.3	8.043	A
			2	1, 2	549	1019	0.538	547	545	0.8	1.3	7.402	A
		2	1	(1, 2, 3)	1152			1151	1140	0.0	0.6	1.168	A
	Exit	1	1		603			603	595	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	72	799	0.090	72	70	0.1	0.1	5.026	A
			2	2, 3	405	799	0.507	408	401	0.5	0.9	8.875	A
		2	1	(1, 2, 3)	477			477	473	0.0	0.0	0.248	A
	Exit	1	1		659			659	644	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	185	948	0.196	184	186	0.2	0.3	4.674	A
			2	1, 3	74	948	0.078	73	73	0.1	0.1	4.224	A
		2	1	(1, 2, 3)	259			259	260	0.0	0.0	0.000	A
	Exit	1	1		642			642	635	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	584	1021	0.572	586	591	1.3	1.2	8.151	A
			2	1, 2	553	1021	0.542	555	547	1.3	1.2	7.303	A
		2	1	(1, 2, 3)	1140			1137	1138	0.6	0.5	1.373	A
	Exit	1	1		577			577	580	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	72	798	0.090	72	72	0.1	0.1	4.908	A
			2	2, 3	391	798	0.490	390	391	0.9	0.8	8.597	A
		2	1	(1, 2, 3)	462			462	463	0.0	0.0	0.200	A
	Exit	1	1		642			642	646	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	165	968	0.170	166	166	0.3	0.1	4.520	A
			2	1, 3	63	968	0.065	63	59	0.1	0.1	3.971	A
		2	1	(1, 2, 3)	228			228	224	0.0	0.0	0.000	A
	Exit	1	1		512			512	516	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	465	1025	0.454	464	485	1.2	0.9	6.746	A
			2	1, 2	445	1025	0.435	445	448	1.2	0.8	5.941	A
		2	1	(1, 2, 3)	910			910	929	0.5	0.0	0.373	A
	Exit	1	1		505			505	497	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	55	838	0.066	56	57	0.1	0.1	4.681	A
			2	2, 3	338	838	0.403	337	328	0.8	0.7	7.120	A
		2	1	(1, 2, 3)	393			393	385	0.0	0.0	0.094	A
	Exit	1	1		513			513	529	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	129	990	0.131	129	132	0.1	0.2	4.195	A
			2	1, 3	52	990	0.053	52	51	0.1	0.1	3.795	A
		2	1	(1, 2, 3)	182			182	183	0.0	0.0	0.000	A
	Exit	1	1		431			431	429	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	407	1028	0.396	408	405	0.9	0.5	5.926	A
			2	1, 2	370	1028	0.360	372	371	0.8	0.5	5.475	A
		2	1	(1, 2, 3)	777			777	773	0.0	0.0	0.075	A
	Exit	1	1		408			408	406	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	863	0.055	47	48	0.1	0.1	4.301	A
			2	2, 3	274	863	0.318	277	271	0.7	0.4	6.167	A
		2	1	(1, 2, 3)	322			322	318	0.0	0.0	0.005	A
	Exit	1	1		447			447	444	0.0	0.0	0.000	A

2031 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	7.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	411	100.000
2 - Leicester Road (E)		ONE HOUR	✓	703	100.000
3 - Sacheverell Way		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	272	112
	2 - Leicester Road (E)	254	5	444
	3 - Sacheverell Way	42	502	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	5.88	0.7	A	379	569
2 - Leicester Road (E)	6.67	1.5	A	653	980
3 - Sacheverell Way	10.63	1.9	B	498	747

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	314	78	381	311	314	258	0.0	0.7	4.676	A
2 - Leicester Road (E)	544	136	105	545	538	588	0.0	0.6	5.170	A
3 - Sacheverell Way	406	102	233	406	412	418	0.0	0.8	6.327	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	381	95	464	380	372	290	0.7	0.5	4.885	A
2 - Leicester Road (E)	637	159	126	637	632	717	0.6	0.9	5.627	A
3 - Sacheverell Way	498	125	258	495	493	507	0.8	1.4	7.632	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	453	113	560	452	451	363	0.5	0.7	5.883	A
2 - Leicester Road (E)	783	196	148	784	775	864	0.9	1.2	6.597	A
3 - Sacheverell Way	602	150	320	603	601	612	1.4	1.9	9.967	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	449	112	564	449	449	369	0.7	0.7	5.810	A
2 - Leicester Road (E)	781	195	153	781	778	861	1.2	1.5	6.671	A
3 - Sacheverell Way	602	151	327	607	600	607	1.9	1.7	10.634	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	373	93	454	372	373	289	0.7	0.5	5.092	A
2 - Leicester Road (E)	638	159	126	635	641	700	1.5	1.0	5.743	A
3 - Sacheverell Way	488	122	256	487	487	504	1.7	1.1	7.769	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	307	77	366	308	313	240	0.5	0.4	4.584	A
2 - Leicester Road (E)	536	134	106	535	524	568	1.0	0.7	5.039	A
3 - Sacheverell Way	393	98	212	394	405	429	1.1	0.6	6.323	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	208	952	0.219	206	208	0.0	0.5	4.889	A
			2	1, 3	105	952	0.111	105	106	0.0	0.2	4.255	A
		2	1	(1, 2, 3)	314			314	317	0.0	0.0	0.000	A
	Exit	1	1		258			258	246	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	335	1009	0.332	336	339	0.0	0.4	5.525	A
			2	1, 2	209	1009	0.207	209	199	0.0	0.2	4.457	A
		2	1	(1, 2, 3)	544			544	541	0.0	0.0	0.043	A
	Exit	1	1		588			588	592	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	31	917	0.033	30	31	0.0	0.0	3.942	A
			2	2, 3	375	917	0.409	376	380	0.0	0.7	6.452	A
		2	1	(1, 2, 3)	406			406	415	0.0	0.0	0.062	A
	Exit	1	1		418			418	425	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	253	922	0.275	254	244	0.5	0.3	5.128	A
			2	1, 3	128	922	0.139	126	127	0.2	0.2	4.419	A
		2	1	(1, 2, 3)	381			381	371	0.0	0.0	0.000	A
	Exit	1	1		290			290	293	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	403	1001	0.403	403	398	0.4	0.7	5.931	A
			2	1, 2	234	1001	0.233	235	235	0.2	0.3	4.864	A
		2	1	(1, 2, 3)	637			637	633	0.0	0.0	0.095	A
	Exit	1	1		717			717	705	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	908	0.040	37	37	0.0	0.0	4.519	A
			2	2, 3	461	908	0.507	458	456	0.7	1.2	7.577	A
		2	1	(1, 2, 3)	498			498	494	0.0	0.1	0.279	A
	Exit	1	1		507			507	499	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	306	886	0.345	304	301	0.3	0.5	6.389	A
			2	1, 3	147	886	0.166	148	150	0.2	0.1	4.842	A
		2	1	(1, 2, 3)	453			453	452	0.0	0.0	0.005	A
	Exit	1	1		363			363	358	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	492	993	0.496	491	486	0.7	0.9	7.018	A
			2	1, 2	292	993	0.294	293	288	0.3	0.3	5.227	A
		2	1	(1, 2, 3)	783			784	776	0.0	0.0	0.251	A
	Exit	1	1		864			864	861	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	49	886	0.055	49	46	0.0	0.0	4.547	A
			2	2, 3	552	886	0.623	554	554	1.2	1.7	9.507	A
		2	1	(1, 2, 3)	602			601	603	0.1	0.2	0.833	A
	Exit	1	1		612			612	607	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	296	884	0.335	296	299	0.5	0.4	6.258	A
			2	1, 3	153	884	0.173	153	149	0.1	0.3	4.888	A
		2	1	(1, 2, 3)	449			449	449	0.0	0.0	0.008	A
	Exit	1	1		369			369	356	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	480	991	0.484	483	491	0.9	0.8	7.147	A
			2	1, 2	302	991	0.305	298	287	0.3	0.7	4.936	A
		2	1	(1, 2, 3)	781			782	779	0.0	0.0	0.352	A
	Exit	1	1		861			861	859	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	884	0.053	47	46	0.0	0.0	4.251	A
			2	2, 3	557	884	0.630	559	554	1.7	1.5	9.944	A
		2	1	(1, 2, 3)	602			604	600	0.2	0.1	1.133	A
	Exit	1	1		607			607	611	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	246	925	0.265	246	246	0.4	0.3	5.318	A
			2	1, 3	127	925	0.138	126	127	0.3	0.2	4.650	A
		2	1	(1, 2, 3)	373			373	372	0.0	0.0	0.001	A
	Exit	1	1		289			289	291	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	406	1001	0.405	403	407	0.8	0.7	6.143	A
			2	1, 2	231	1001	0.231	231	234	0.7	0.3	4.838	A
		2	1	(1, 2, 3)	638			637	639	0.0	0.0	0.076	A
	Exit	1	1		700			700	700	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	909	0.041	36	36	0.0	0.1	4.066	A
			2	2, 3	452	909	0.498	450	451	1.5	1.0	7.811	A
		2	1	(1, 2, 3)	488			489	485	0.1	0.0	0.243	A
	Exit	1	1		504			504	510	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	200	958	0.209	202	206	0.3	0.2	4.740	A
			2	1, 3	107	958	0.111	106	108	0.2	0.2	4.283	A
		2	1	(1, 2, 3)	307			307	313	0.0	0.0	0.000	A
	Exit	1	1		240			240	240	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	343	1008	0.341	343	332	0.7	0.5	5.347	A
			2	1, 2	192	1008	0.191	193	191	0.3	0.2	4.431	A
		2	1	(1, 2, 3)	536			536	522	0.0	0.0	0.035	A
	Exit	1	1		568			568	583	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	32	924	0.034	32	31	0.1	0.0	3.850	A
			2	2, 3	361	924	0.391	362	374	1.0	0.5	6.462	A
		2	1	(1, 2, 3)	393			393	403	0.0	0.0	0.063	A
	Exit	1	1		429			429	419	0.0	0.0	0.000	A

2031 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	8.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	251	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1069	100.000
3 - Sacheverell Way		ONE HOUR	✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	174	60
	2 - Leicester Road (E)	494	3	572
	3 - Sacheverell Way	65	384	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	4.72	0.4	A	231	347
2 - Leicester Road (E)	9.55	3.3	A	981	1471
3 - Sacheverell Way	8.98	1.3	A	413	619

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	187	47	286	187	186	424	0.0	0.1	4.031	A
2 - Leicester Road (E)	798	200	53	795	787	420	0.0	1.6	5.912	A
3 - Sacheverell Way	335	84	375	335	342	472	0.0	0.6	6.144	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	226	57	350	228	223	520	0.1	0.1	4.271	A
2 - Leicester Road (E)	963	241	69	970	956	509	1.6	1.4	6.858	A
3 - Sacheverell Way	402	101	467	403	404	571	0.6	0.7	7.098	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	287	72	441	289	280	640	0.1	0.2	4.724	A
2 - Leicester Road (E)	1170	293	88	1177	1166	642	1.4	2.8	8.889	A
3 - Sacheverell Way	515	129	569	512	501	696	0.7	1.3	8.975	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	282	70	420	282	280	626	0.2	0.4	4.672	A
2 - Leicester Road (E)	1165	291	86	1160	1172	617	2.8	3.3	9.553	A
3 - Sacheverell Way	486	122	559	487	499	686	1.3	1.0	8.773	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	220	55	342	221	228	524	0.4	0.2	4.385	A
2 - Leicester Road (E)	966	241	67	964	972	495	3.3	2.1	7.365	A
3 - Sacheverell Way	400	100	467	398	404	564	1.0	0.8	7.114	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	186	46	288	187	189	436	0.2	0.2	4.079	A
2 - Leicester Road (E)	823	206	58	823	809	416	2.1	1.5	6.185	A
3 - Sacheverell Way	337	84	391	334	342	490	0.8	0.8	6.164	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	134	988	0.136	134	129	0.0	0.1	4.058	A
			2	1, 3	53	988	0.053	53	57	0.0	0.0	3.967	A
		2	1	(1, 2, 3)	187			187	187	0.0	0.0	0.000	A
	Exit	1	1		424			424	423	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	433	1028	0.421	430	423	0.0	1.1	6.197	A
			2	1, 2	365	1028	0.355	365	364	0.0	0.5	5.277	A
		2	1	(1, 2, 3)	798			798	794	0.0	0.0	0.145	A
	Exit	1	1		420			420	425	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	51	867	0.059	52	50	0.0	0.1	4.574	A
			2	2, 3	284	867	0.327	284	293	0.0	0.5	6.368	A
		2	1	(1, 2, 3)	335			335	345	0.0	0.0	0.036	A
	Exit	1	1		472			472	468	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	158	964	0.164	159	153	0.1	0.1	4.341	A
			2	1, 3	68	964	0.070	69	70	0.0	0.0	4.117	A
		2	1	(1, 2, 3)	226			226	223	0.0	0.0	0.000	A
	Exit	1	1		520			520	520	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	514	1022	0.503	519	507	1.1	0.7	6.978	A
			2	1, 2	449	1022	0.439	451	449	0.5	0.7	5.993	A
		2	1	(1, 2, 3)	963			963	956	0.0	0.0	0.352	A
	Exit	1	1		509			509	502	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	56	834	0.067	56	57	0.1	0.1	4.781	A
			2	2, 3	347	834	0.415	347	347	0.5	0.6	7.367	A
		2	1	(1, 2, 3)	402			402	404	0.0	0.0	0.098	A
	Exit	1	1		571			571	561	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	200	930	0.215	201	194	0.1	0.2	4.874	A
			2	1, 3	87	930	0.094	88	87	0.0	0.1	4.387	A
		2	1	(1, 2, 3)	287			287	281	0.0	0.0	0.000	A
	Exit	1	1		640			640	626	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	624	1015	0.614	628	627	0.7	1.5	8.287	A
			2	1, 2	551	1015	0.543	550	539	0.7	1.0	7.061	A
		2	1	(1, 2, 3)	1170			1175	1170	0.0	0.3	1.170	A
	Exit	1	1		642			642	626	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	74	799	0.093	75	72	0.1	0.1	4.780	A
			2	2, 3	440	799	0.551	437	429	0.6	1.1	9.113	A
		2	1	(1, 2, 3)	515			514	503	0.0	0.1	0.477	A
	Exit	1	1		696			696	695	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	196	938	0.209	197	193	0.2	0.3	4.883	A
			2	1, 3	85	938	0.091	86	87	0.1	0.1	4.203	A
		2	1	(1, 2, 3)	282			282	281	0.0	0.0	0.000	A
	Exit	1	1		626			626	632	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	619	1016	0.609	617	626	1.5	1.6	8.377	A
			2	1, 2	545	1016	0.536	543	546	1.0	1.1	7.616	A
		2	1	(1, 2, 3)	1165			1163	1173	0.3	0.6	1.525	A
	Exit	1	1		617			617	624	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	72	802	0.089	71	72	0.1	0.1	4.841	A
			2	2, 3	415	802	0.517	416	427	1.1	0.9	9.060	A
		2	1	(1, 2, 3)	486			486	498	0.1	0.0	0.330	A
	Exit	1	1		686			686	695	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	152	967	0.158	153	159	0.3	0.1	4.475	A
			2	1, 3	67	967	0.069	67	69	0.1	0.1	4.176	A
		2	1	(1, 2, 3)	220			220	227	0.0	0.0	0.000	A
	Exit	1	1		524			524	527	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	512	1023	0.500	510	516	1.6	1.1	7.154	A
			2	1, 2	455	1023	0.445	454	456	1.1	0.8	6.210	A
		2	1	(1, 2, 3)	966			967	969	0.6	0.2	0.674	A
	Exit	1	1		495			495	505	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	57	835	0.069	58	60	0.1	0.0	4.344	A
			2	2, 3	343	835	0.411	340	344	0.9	0.8	7.459	A
		2	1	(1, 2, 3)	400			400	403	0.0	0.0	0.114	A
	Exit	1	1		564			564	571	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	128	987	0.129	128	130	0.1	0.1	4.208	A
			2	1, 3	58	987	0.059	58	59	0.1	0.0	3.791	A
		2	1	(1, 2, 3)	186			186	189	0.0	0.0	0.000	A
	Exit	1	1		436			436	433	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	445	1026	0.434	444	437	1.1	0.9	6.313	A
			2	1, 2	378	1026	0.369	379	373	0.8	0.5	5.651	A
		2	1	(1, 2, 3)	823			823	808	0.2	0.0	0.197	A
	Exit	1	1		416			416	425	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	862	0.056	48	50	0.0	0.1	4.343	A
			2	2, 3	289	862	0.335	286	292	0.8	0.7	6.458	A
		2	1	(1, 2, 3)	337			337	342	0.0	0.0	0.015	A
	Exit	1	1		490			490	482	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Calibration Model - AM - Lane Sim.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:45:21

»2024 Base, AM
»2028 Furnessed Future, AM
»2028 Furnessed Future + Dev, AM
»2031 Furnessed Future, AM
»2031 Furnessed Future + Dev, AM

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2024 Base			
1 - Leicester Road (W)	1.7	17.91		C
2 - Leicester Road (E)	1.9	9.92		A
3 - Sacheverell Way	3.6	27.43		D
	[Lane Simulation] - 2028 Furnessed Future			
1 - Leicester Road (W)	2.5	23.98		C
2 - Leicester Road (E)	2.9	12.92		B
3 - Sacheverell Way	4.9	27.79		D
	[Lane Simulation] - 2028 Furnessed Future + Dev			
1 - Leicester Road (W)	2.7	26.82		D
2 - Leicester Road (E)	2.6	13.34		B
3 - Sacheverell Way	5.7	37.77		E
	[Lane Simulation] - 2031 Furnessed Future			
1 - Leicester Road (W)	3.8	30.10		D
2 - Leicester Road (E)	3.1	14.41		B
3 - Sacheverell Way	5.6	36.70		E
	[Lane Simulation] - 2031 Furnessed Future + Dev			
1 - Leicester Road (W)	4.4	35.00		D
2 - Leicester Road (E)	3.3	15.38		C
3 - Sacheverell Way	9.0	55.59		F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			224696920	109	4.70

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	17.81	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Leicester Road (W)	Direct	To Calibrate and Validate to Observed Queues	-1000
2 - Leicester Road (E)	Direct	To Calibrate and Validate to Observed Queues	-600
3 - Sacheverell Way	Direct	To Calibrate and Validate to Observed Queues	-550

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	1189
2 - Leicester Road (E)	0.742	1496
3 - Sacheverell Way	0.705	1449

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Leicester Road (W)	Evenly split	10.00
2 - Leicester Road (E)	Evenly split	10.00
3 - Sacheverell Way	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Leicester Road (W)	Entry	1	1	2	✓	7.00		0	99999	
			2	1, 3	✓	7.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
2 - Leicester Road (E)	Entry	1	1	2, 3	✓	5.50		0	99999	
			2	1, 2	✓	5.50		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
3 - Sacheverell Way	Entry	1	1	1	✓	5.00		0	99999	
			2	2, 3	✓	3.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	Entry	1	1	0.372	594
			2	0.372	594
2 - Leicester Road (E)	Entry	1	1	0.371	748
			2	0.371	748
3 - Sacheverell Way	Entry	1	1	0.353	724
			2	0.353	724

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Leicester Road (W)	Leicester Road (E)	Sacheverell Way
1 - Leicester Road (W)	1	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
2 - Leicester Road (E)	1	1		✓	✓
		2	✓	✓	
	2	1	✓	✓	✓
3 - Sacheverell Way	1	1	✓		
		2		✓	✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	300	100.000
2 - Leicester Road (E)		ONE HOUR	✓	588	100.000
3 - Sacheverell Way		ONE HOUR	✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	22	216	62
	2 - Leicester Road (E)	243	5	340
	3 - Sacheverell Way	33	442	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	17.91	1.7	C	276	413
2 - Leicester Road (E)	9.92	1.9	A	533	800
3 - Sacheverell Way	27.43	3.6	D	435	652

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	224	56	327	224	225	226	0.0	0.7	10.792	B
2 - Leicester Road (E)	448	112	63	449	442	488	0.0	0.9	7.137	A
3 - Sacheverell Way	353	88	203	350	351	309	0.0	1.2	10.583	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	275	69	403	275	272	267	0.7	0.9	12.523	B
2 - Leicester Road (E)	519	130	80	518	520	598	0.9	1.1	8.055	A
3 - Sacheverell Way	430	107	238	432	425	359	1.2	1.6	13.464	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	328	82	478	326	327	326	0.9	1.7	17.675	C
2 - Leicester Road (E)	644	161	88	641	631	715	1.1	1.9	9.919	A
3 - Sacheverell Way	515	129	297	506	511	432	1.6	3.4	21.651	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	338	85	490	341	334	330	1.7	1.5	17.907	C
2 - Leicester Road (E)	629	157	98	629	648	733	1.9	1.6	9.817	A
3 - Sacheverell Way	524	131	296	524	520	430	3.4	3.6	27.434	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	269	67	396	270	272	264	1.5	1.1	14.465	B
2 - Leicester Road (E)	521	130	74	523	531	593	1.6	1.3	8.268	A
3 - Sacheverell Way	424	106	241	420	432	356	3.6	2.0	14.879	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	220	55	344	218	224	226	1.1	0.7	10.598	B
2 - Leicester Road (E)	439	110	64	441	442	498	1.3	0.9	7.573	A
3 - Sacheverell Way	363	91	204	366	361	302	2.0	0.8	11.524	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	161	472	0.341	161	160	0.0	0.6	11.505	B
			2	1, 3	63	472	0.132	63	66	0.0	0.1	9.025	A
		2	1	(1, 2, 3)	224			224	228	0.0	0.0	0.002	A
	Exit	1	1		226			226	226	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	261	724	0.361	263	257	0.0	0.5	7.535	A
			2	1, 2	186	724	0.257	186	185	0.0	0.4	6.553	A
		2	1	(1, 2, 3)	448			448	446	0.0	0.0	0.017	A
	Exit	1	1		488			488	488	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	26	653	0.040	26	26	0.0	0.0	5.838	A
			2	2, 3	325	653	0.498	324	325	0.0	1.0	9.563	A
		2	1	(1, 2, 3)	353			351	355	0.0	0.2	1.288	A
	Exit	1	1		309			309	303	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	196	444	0.440	195	194	0.6	0.7	13.646	B
			2	1, 3	79	444	0.178	80	78	0.1	0.2	9.638	A
		2	1	(1, 2, 3)	275			275	273	0.0	0.0	0.025	A
	Exit	1	1		267			267	266	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	305	718	0.424	304	303	0.5	0.6	8.560	A
			2	1, 2	214	718	0.298	213	217	0.4	0.4	7.228	A
		2	1	(1, 2, 3)	519			519	521	0.0	0.0	0.053	A
	Exit	1	1		598			598	593	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	33	640	0.052	33	31	0.0	0.0	5.964	A
			2	2, 3	399	640	0.623	399	395	1.0	1.3	10.788	B
		2	1	(1, 2, 3)	430			432	426	0.2	0.3	3.005	A
	Exit	1	1		359			359	358	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	237	416	0.570	238	237	0.7	1.3	19.665	C
			2	1, 3	89	416	0.213	88	90	0.2	0.2	10.856	B
		2	1	(1, 2, 3)	328			326	329	0.0	0.1	0.353	A
	Exit	1	1		326			326	323	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	371	715	0.518	370	365	0.6	1.1	10.404	B
			2	1, 2	271	715	0.379	272	266	0.4	0.6	7.997	A
		2	1	(1, 2, 3)	644			642	633	0.0	0.2	0.525	A
	Exit	1	1		715			715	717	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	35	619	0.056	35	36	0.0	0.0	6.420	A
			2	2, 3	473	619	0.764	471	475	1.3	1.8	13.190	B
		2	1	(1, 2, 3)	515			508	513	0.3	1.6	8.886	A
	Exit	1	1		432			432	428	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	240	412	0.583	243	239	1.3	1.2	19.857	C
			2	1, 3	99	412	0.240	98	95	0.2	0.3	11.409	B
		2	1	(1, 2, 3)	338			339	334	0.1	0.0	0.513	A
	Exit	1	1		330			330	335	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	365	712	0.513	365	375	1.1	1.0	10.334	B
			2	1, 2	264	712	0.371	264	273	0.6	0.5	8.010	A
		2	1	(1, 2, 3)	629			629	647	0.2	0.1	0.473	A
	Exit	1	1		733			733	726	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	39	620	0.063	39	38	0.0	0.1	6.573	A
			2	2, 3	482	620	0.777	485	482	1.8	1.6	14.222	B
		2	1	(1, 2, 3)	524			521	519	1.6	1.9	13.744	B
	Exit	1	1		430			430	441	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	195	447	0.437	197	196	1.2	0.9	16.123	C
			2	1, 3	74	447	0.166	74	76	0.3	0.2	9.849	A
		2	1	(1, 2, 3)	269			269	270	0.0	0.0	0.093	A
	Exit	1	1		264			264	268	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	302	721	0.419	304	309	1.0	0.7	8.837	A
			2	1, 2	219	721	0.304	220	223	0.5	0.6	7.203	A
		2	1	(1, 2, 3)	521			521	530	0.1	0.0	0.122	A
	Exit	1	1		593			593	604	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	28	639	0.044	28	29	0.1	0.1	5.877	A
			2	2, 3	391	639	0.612	391	403	1.6	1.3	11.327	B
		2	1	(1, 2, 3)	424			420	431	1.9	0.7	4.040	A
	Exit	1	1		356			356	364	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	156	466	0.334	154	160	0.9	0.6	11.295	B
			2	1, 3	64	466	0.137	64	64	0.2	0.1	8.842	A
		2	1	(1, 2, 3)	220			220	223	0.0	0.0	0.000	A
	Exit	1	1		226			226	230	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	256	724	0.353	258	255	0.7	0.5	8.012	A
			2	1, 2	183	724	0.252	184	188	0.6	0.4	6.725	A
		2	1	(1, 2, 3)	439			439	441	0.0	0.0	0.123	A
	Exit	1	1		498			498	499	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	25	653	0.038	25	26	0.1	0.0	6.020	A
			2	2, 3	340	653	0.521	341	335	1.3	0.7	9.889	A
		2	1	(1, 2, 3)	363			365	359	0.7	0.0	1.942	A
	Exit	1	1		302			302	299	0.0	0.0	0.000	A

2028 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	20.35	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	353	100.000
2 - Leicester Road (E)		ONE HOUR	✓	662	100.000
3 - Sacheverell Way		ONE HOUR	✓	485	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	250	78
	2 - Leicester Road (E)	260	5	397
	3 - Sacheverell Way	34	451	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	23.98	2.5	C	328	491
2 - Leicester Road (E)	12.92	2.9	B	606	908
3 - Sacheverell Way	27.79	4.9	D	445	668

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	267	67	336	262	260	239	0.0	1.1	12.285	B
2 - Leicester Road (E)	496	124	80	495	495	519	0.0	1.2	8.149	A
3 - Sacheverell Way	358	90	219	356	368	355	0.0	1.4	11.894	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	319	80	415	318	315	277	1.1	1.3	14.799	B
2 - Leicester Road (E)	591	148	91	591	588	642	1.2	1.7	9.420	A
3 - Sacheverell Way	440	110	252	440	440	430	1.4	1.9	14.955	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	390	97	492	391	382	354	1.3	2.5	21.393	C
2 - Leicester Road (E)	727	182	117	722	726	766	1.7	2.9	11.414	B
3 - Sacheverell Way	523	131	321	525	522	518	1.9	3.6	25.217	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	392	98	494	394	391	350	2.5	2.5	23.976	C
2 - Leicester Road (E)	732	183	115	724	733	772	2.9	2.9	12.919	B
3 - Sacheverell Way	538	134	322	522	521	518	3.6	4.9	27.791	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	324	81	428	325	326	283	2.5	1.2	18.000	C
2 - Leicester Road (E)	594	148	92	592	601	661	2.9	1.6	9.528	A
3 - Sacheverell Way	446	111	259	451	453	425	4.9	1.5	16.705	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	275	69	345	274	270	242	1.2	0.9	12.210	B
2 - Leicester Road (E)	493	123	79	496	496	540	1.6	0.9	7.990	A
3 - Sacheverell Way	366	92	222	365	370	352	1.5	1.2	11.979	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	186	469	0.397	183	183	0.0	0.8	13.322	B
			2	1, 3	81	469	0.172	80	77	0.0	0.2	9.697	A
		2	1	(1, 2, 3)	267			267	264	0.0	0.0	0.026	A
	Exit	1	1		239			239	236	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	300	718	0.417	299	300	0.0	0.8	8.707	A
			2	1, 2	197	718	0.275	196	195	0.0	0.4	6.834	A
		2	1	(1, 2, 3)	496			497	500	0.0	0.0	0.185	A
	Exit	1	1		519			519	531	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	24	647	0.037	24	23	0.0	0.0	5.449	A
			2	2, 3	333	647	0.515	332	345	0.0	1.1	10.211	B
		2	1	(1, 2, 3)	358			357	373	0.0	0.3	1.968	A
	Exit	1	1		355			355	356	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	227	440	0.517	227	223	0.8	0.9	16.228	C
			2	1, 3	92	440	0.209	91	92	0.2	0.3	10.820	B
		2	1	(1, 2, 3)	319			319	316	0.0	0.0	0.135	A
	Exit	1	1		277			277	282	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	363	714	0.508	363	355	0.8	1.2	10.193	B
			2	1, 2	229	714	0.320	229	233	0.4	0.5	7.403	A
		2	1	(1, 2, 3)	591			592	590	0.0	0.0	0.334	A
	Exit	1	1		642			642	637	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	31	635	0.048	31	30	0.0	0.0	5.908	A
			2	2, 3	410	635	0.646	409	409	1.1	1.4	11.241	B
		2	1	(1, 2, 3)	440			441	441	0.3	0.4	4.068	A
	Exit	1	1		430			430	424	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	273	411	0.663	274	268	0.9	2.0	23.995	C
			2	1, 3	116	411	0.282	117	114	0.3	0.3	12.170	B
		2	1	(1, 2, 3)	390			389	387	0.0	0.1	0.824	A
	Exit	1	1		354			354	352	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	436	705	0.619	432	434	1.2	1.8	11.698	B
			2	1, 2	290	705	0.411	290	292	0.5	0.7	8.542	A
		2	1	(1, 2, 3)	727			726	729	0.0	0.4	0.973	A
	Exit	1	1		766			766	759	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	611	0.060	37	36	0.0	0.1	6.201	A
			2	2, 3	486	611	0.795	487	486	1.4	1.8	13.995	B
		2	1	(1, 2, 3)	523			522	523	0.4	1.8	11.712	B
	Exit	1	1		518			518	520	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	277	410	0.674	278	275	2.0	1.9	26.158	D
			2	1, 3	116	410	0.284	115	115	0.3	0.5	12.668	B
		2	1	(1, 2, 3)	392			393	390	0.1	0.2	1.799	A
	Exit	1	1		350			350	350	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	435	705	0.617	432	440	1.8	1.7	12.892	B
			2	1, 2	294	705	0.417	292	292	0.7	0.8	8.789	A
		2	1	(1, 2, 3)	732			729	732	0.4	0.4	1.683	A
	Exit	1	1		772			772	768	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	34	611	0.056	34	34	0.1	0.1	6.707	A
			2	2, 3	492	611	0.805	488	487	1.8	2.2	14.280	B
		2	1	(1, 2, 3)	538			526	523	1.8	2.7	14.001	B
	Exit	1	1		518			518	526	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	231	435	0.532	233	233	1.9	0.9	19.128	C
			2	1, 3	94	435	0.216	92	93	0.5	0.3	11.404	B
		2	1	(1, 2, 3)	324			325	322	0.2	0.0	1.179	A
	Exit	1	1		283			283	288	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	358	714	0.502	357	364	1.7	1.1	10.060	B
			2	1, 2	236	714	0.330	235	237	0.8	0.5	7.763	A
		2	1	(1, 2, 3)	594			594	597	0.4	0.0	0.415	A
	Exit	1	1		661			661	659	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	28	633	0.045	29	32	0.1	0.0	6.192	A
			2	2, 3	418	633	0.660	423	421	2.2	1.0	11.771	B
		2	1	(1, 2, 3)	446			446	448	2.7	0.5	5.431	A
	Exit	1	1		425			425	433	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	196	466	0.421	196	191	0.9	0.7	13.177	B
			2	1, 3	79	466	0.169	79	79	0.3	0.2	9.859	A
		2	1	(1, 2, 3)	275			275	268	0.0	0.0	0.000	A
	Exit	1	1		242			242	242	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	293	719	0.408	294	296	1.1	0.6	8.421	A
			2	1, 2	200	719	0.278	202	200	0.5	0.3	6.740	A
		2	1	(1, 2, 3)	493			493	493	0.0	0.0	0.252	A
	Exit	1	1		540			540	539	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	24	646	0.038	24	25	0.0	0.0	6.068	A
			2	2, 3	342	646	0.529	340	345	1.0	1.0	10.253	B
		2	1	(1, 2, 3)	366			366	370	0.5	0.2	2.041	A
	Exit	1	1		352			352	354	0.0	0.0	0.000	A

2028 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	24.55	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2028 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	352	100.000
2 - Leicester Road (E)		ONE HOUR	✓	671	100.000
3 - Sacheverell Way		ONE HOUR	✓	508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	25	249	78
	2 - Leicester Road (E)	259	5	407
	3 - Sacheverell Way	40	468	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	26.82	2.7	D	320	481
2 - Leicester Road (E)	13.34	2.6	B	614	921
3 - Sacheverell Way	37.77	5.7	E	466	699

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	255	64	354	257	259	246	0.0	0.7	12.089	B
2 - Leicester Road (E)	510	128	74	512	507	537	0.0	1.0	8.186	A
3 - Sacheverell Way	383	96	219	381	383	367	0.0	1.3	11.925	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	315	79	423	316	312	293	0.7	1.5	14.434	B
2 - Leicester Road (E)	613	153	90	611	602	648	1.0	1.7	9.233	A
3 - Sacheverell Way	457	114	261	454	455	440	1.3	2.1	15.934	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	389	97	510	383	384	360	1.5	2.6	22.290	C
2 - Leicester Road (E)	740	185	113	737	732	780	1.7	2.5	11.870	B
3 - Sacheverell Way	559	140	320	549	545	530	2.1	5.7	29.929	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	380	95	531	385	389	364	2.6	2.7	26.818	D
2 - Leicester Road (E)	725	181	107	721	742	809	2.5	2.6	13.339	B
3 - Sacheverell Way	558	140	323	571	561	506	5.7	5.5	37.772	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	317	79	431	316	325	292	2.7	1.4	17.352	C
2 - Leicester Road (E)	602	151	95	603	610	652	2.6	1.6	9.671	A
3 - Sacheverell Way	457	114	262	461	476	435	5.5	2.0	19.092	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	267	67	360	269	270	236	1.4	0.8	13.197	B
2 - Leicester Road (E)	495	124	78	496	504	551	1.6	1.0	8.259	A
3 - Sacheverell Way	383	96	208	388	388	366	2.0	1.2	12.295	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	182	462	0.393	183	185	0.0	0.6	13.175	B
			2	1, 3	73	462	0.158	74	74	0.0	0.1	9.243	A
		2	1	(1, 2, 3)	255			255	262	0.0	0.0	0.027	A
	Exit	1	1		246			246	245	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	310	721	0.431	312	307	0.0	0.6	8.712	A
			2	1, 2	200	721	0.277	200	199	0.0	0.4	7.110	A
		2	1	(1, 2, 3)	510			510	511	0.0	0.0	0.103	A
	Exit	1	1		537			537	542	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	31	647	0.048	31	29	0.0	0.1	5.923	A
			2	2, 3	352	647	0.543	351	354	0.0	1.0	10.209	B
		2	1	(1, 2, 3)	383			382	387	0.0	0.2	2.038	A
	Exit	1	1		367			367	362	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	225	437	0.515	226	223	0.6	1.1	15.814	C
			2	1, 3	91	437	0.208	90	89	0.1	0.4	10.473	B
		2	1	(1, 2, 3)	315			316	315	0.0	0.0	0.144	A
	Exit	1	1		293			293	293	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	376	714	0.526	375	366	0.6	1.1	10.064	B
			2	1, 2	236	714	0.330	235	236	0.4	0.5	7.203	A
		2	1	(1, 2, 3)	613			612	605	0.0	0.1	0.296	A
	Exit	1	1		648			648	644	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	36	632	0.057	36	37	0.1	0.1	6.400	A
			2	2, 3	417	632	0.660	418	417	1.0	1.4	11.980	B
		2	1	(1, 2, 3)	457			453	457	0.2	0.7	4.378	A
	Exit	1	1		440			440	432	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	273	404	0.675	270	268	1.1	2.0	24.447	C
			2	1, 3	116	404	0.287	113	116	0.4	0.5	12.295	B
		2	1	(1, 2, 3)	389			389	388	0.0	0.1	1.418	A
	Exit	1	1		360			360	359	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	450	706	0.638	447	442	1.1	1.7	12.016	B
			2	1, 2	290	706	0.410	291	290	0.5	0.7	8.728	A
		2	1	(1, 2, 3)	740			740	735	0.1	0.1	1.156	A
	Exit	1	1		780			780	773	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	44	611	0.072	44	45	0.1	0.1	6.743	A
			2	2, 3	507	611	0.830	505	500	1.4	2.2	14.298	B
		2	1	(1, 2, 3)	559			552	548	0.7	3.4	16.181	C
	Exit	1	1		530			530	529	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	272	397	0.686	278	276	2.0	1.9	28.101	D
			2	1, 3	109	397	0.275	107	113	0.5	0.4	13.520	B
		2	1	(1, 2, 3)	380			381	388	0.1	0.3	2.900	A
	Exit	1	1		364			364	360	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	428	708	0.605	426	446	1.7	1.6	13.458	B
			2	1, 2	297	708	0.419	296	295	0.7	0.8	8.626	A
		2	1	(1, 2, 3)	725			725	742	0.1	0.2	1.821	A
	Exit	1	1		809			809	800	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	45	610	0.074	46	43	0.1	0.0	6.563	A
			2	2, 3	528	610	0.865	526	518	2.2	2.3	15.152	C
		2	1	(1, 2, 3)	558			573	561	3.4	3.1	23.327	C
	Exit	1	1		506			506	531	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	222	434	0.513	221	228	1.9	1.1	19.154	C
			2	1, 3	94	434	0.217	95	97	0.4	0.3	10.815	B
		2	1	(1, 2, 3)	317			317	322	0.3	0.0	0.812	A
	Exit	1	1		292			292	295	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	366	713	0.513	365	372	1.6	1.1	10.143	B
			2	1, 2	236	713	0.332	238	238	0.8	0.5	7.957	A
		2	1	(1, 2, 3)	602			602	607	0.2	0.0	0.403	A
	Exit	1	1		652			652	673	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	36	632	0.056	35	36	0.0	0.1	6.080	A
			2	2, 3	425	632	0.672	426	440	2.3	1.3	12.539	B
		2	1	(1, 2, 3)	457			460	472	3.1	0.6	7.106	A
	Exit	1	1		435			435	444	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	189	460	0.410	191	192	1.1	0.6	14.510	B
			2	1, 3	78	460	0.170	78	78	0.3	0.2	9.792	A
		2	1	(1, 2, 3)	267			267	268	0.0	0.0	0.064	A
	Exit	1	1		236			236	240	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	308	719	0.428	308	311	1.1	0.6	8.808	A
			2	1, 2	187	719	0.260	187	193	0.5	0.3	6.987	A
		2	1	(1, 2, 3)	495			495	502	0.0	0.0	0.154	A
	Exit	1	1		551			551	553	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	31	651	0.048	31	31	0.1	0.0	6.834	A
			2	2, 3	355	651	0.546	356	357	1.3	1.0	10.485	B
		2	1	(1, 2, 3)	383			386	386	0.6	0.1	2.129	A
	Exit	1	1		366			366	369	0.0	0.0	0.000	A

2031 Furnessed Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	25.35	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Furnessed Future	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	390	100.000
2 - Leicester Road (E)		ONE HOUR	✓	688	100.000
3 - Sacheverell Way		ONE HOUR	✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	273	90
	2 - Leicester Road (E)	257	5	426
	3 - Sacheverell Way	34	467	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	30.10	3.8	D	358	537
2 - Leicester Road (E)	14.41	3.1	B	631	946
3 - Sacheverell Way	36.70	5.6	E	458	688

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	295	74	354	294	291	236	0.0	1.1	12.922	B
2 - Leicester Road (E)	511	128	90	511	512	558	0.0	1.3	8.275	A
3 - Sacheverell Way	375	94	216	374	374	385	0.0	1.3	12.037	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	350	87	425	351	347	289	1.1	1.6	16.552	C
2 - Leicester Road (E)	623	156	106	624	616	671	1.3	1.8	10.085	B
3 - Sacheverell Way	453	113	262	453	446	468	1.3	2.1	16.162	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	427	107	517	426	418	345	1.6	3.7	26.731	D
2 - Leicester Road (E)	756	189	129	755	751	814	1.8	2.9	13.358	B
3 - Sacheverell Way	549	137	313	549	539	571	2.1	5.0	29.557	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	428	107	518	426	428	350	3.7	3.8	30.098	D
2 - Leicester Road (E)	756	189	129	756	758	814	2.9	3.1	14.411	B
3 - Sacheverell Way	546	137	319	549	547	566	5.0	5.6	36.702	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	355	89	418	356	362	285	3.8	1.7	20.017	C
2 - Leicester Road (E)	618	155	105	620	624	669	3.1	1.7	10.719	B
3 - Sacheverell Way	444	111	260	443	463	465	5.6	2.1	20.496	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	293	73	362	294	295	239	1.7	1.0	13.319	B
2 - Leicester Road (E)	519	130	86	519	523	570	1.7	1.1	8.556	A
3 - Sacheverell Way	384	96	217	383	386	389	2.1	1.3	12.159	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	205	462	0.444	204	203	0.0	0.9	14.141	B
			2	1, 3	90	462	0.194	90	88	0.0	0.2	9.865	A
		2	1	(1, 2, 3)	295			295	295	0.0	0.0	0.056	A
	Exit	1	1		236			236	236	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	318	714	0.445	318	319	0.0	0.9	8.904	A
			2	1, 2	193	714	0.270	193	193	0.0	0.4	6.811	A
		2	1	(1, 2, 3)	511			511	517	0.0	0.0	0.163	A
	Exit	1	1		558			558	557	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	24	648	0.037	24	25	0.0	0.0	5.663	A
			2	2, 3	351	648	0.541	351	350	0.0	1.0	10.239	B
		2	1	(1, 2, 3)	375			375	378	0.0	0.2	2.084	A
	Exit	1	1		385			385	384	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	245	436	0.561	245	243	0.9	1.3	18.558	C
			2	1, 3	105	436	0.241	106	104	0.2	0.3	10.773	B
		2	1	(1, 2, 3)	350			350	349	0.0	0.0	0.312	A
	Exit	1	1		289			289	284	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	387	709	0.547	388	384	0.9	1.2	10.732	B
			2	1, 2	237	709	0.334	236	232	0.4	0.5	7.561	A
		2	1	(1, 2, 3)	623			624	618	0.0	0.1	0.557	A
	Exit	1	1		671			671	663	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	32	632	0.050	32	31	0.0	0.1	6.133	A
			2	2, 3	421	632	0.667	421	416	1.0	1.4	11.738	B
		2	1	(1, 2, 3)	453			453	448	0.2	0.7	4.778	A
	Exit	1	1		468			468	463	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	296	402	0.737	297	292	1.3	2.5	27.972	D
			2	1, 3	129	402	0.321	129	126	0.3	0.5	12.968	B
		2	1	(1, 2, 3)	427			425	424	0.0	0.6	3.094	A
	Exit	1	1		345			345	344	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	471	700	0.673	473	470	1.2	1.7	13.175	B
			2	1, 2	285	700	0.407	282	282	0.5	0.8	8.580	A
		2	1	(1, 2, 3)	756			756	755	0.1	0.4	1.908	A
	Exit	1	1		814			814	799	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	38	614	0.062	38	37	0.1	0.1	6.465	A
			2	2, 3	510	614	0.831	511	502	1.4	2.0	14.375	B
		2	1	(1, 2, 3)	549			548	542	0.7	2.8	15.669	C
	Exit	1	1		571			571	566	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	298	401	0.742	296	299	2.5	2.7	30.713	D
			2	1, 3	130	401	0.323	129	129	0.5	0.5	13.361	B
		2	1	(1, 2, 3)	428			427	428	0.6	0.6	4.592	A
	Exit	1	1		350			350	351	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	467	700	0.667	469	470	1.7	1.7	13.931	B
			2	1, 2	288	700	0.411	287	288	0.8	0.8	8.755	A
		2	1	(1, 2, 3)	756			755	758	0.4	0.6	2.452	A
	Exit	1	1		814			814	815	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	612	0.060	37	36	0.1	0.1	6.450	A
			2	2, 3	512	612	0.836	512	510	2.0	2.1	14.978	B
		2	1	(1, 2, 3)	546			548	547	2.8	3.5	22.283	C
	Exit	1	1		566			566	567	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	249	439	0.568	251	256	2.7	1.3	21.645	C
			2	1, 3	106	439	0.241	105	106	0.5	0.4	11.823	B
		2	1	(1, 2, 3)	355			355	356	0.6	0.1	1.459	A
	Exit	1	1		285			285	286	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	386	709	0.545	387	390	1.7	1.2	11.175	B
			2	1, 2	233	709	0.328	233	234	0.8	0.5	7.725	A
		2	1	(1, 2, 3)	618			619	621	0.6	0.1	0.883	A
	Exit	1	1		669			669	693	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	30	633	0.047	30	30	0.1	0.0	6.336	A
			2	2, 3	415	633	0.655	413	432	2.1	1.4	12.576	B
		2	1	(1, 2, 3)	444			444	460	3.5	0.6	8.460	A
	Exit	1	1		465			465	470	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	207	460	0.449	208	206	1.3	0.8	14.749	B
			2	1, 3	87	460	0.188	86	89	0.4	0.2	9.781	A
		2	1	(1, 2, 3)	293			293	293	0.1	0.0	0.097	A
	Exit	1	1		239			239	243	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	323	716	0.452	324	325	1.2	0.8	9.243	A
			2	1, 2	195	716	0.273	195	198	0.5	0.3	6.918	A
		2	1	(1, 2, 3)	519			519	521	0.1	0.0	0.210	A
	Exit	1	1		570			570	569	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	26	648	0.040	25	26	0.0	0.0	5.914	A
			2	2, 3	359	648	0.554	358	359	1.4	1.1	10.256	B
		2	1	(1, 2, 3)	384			385	384	0.6	0.2	2.242	A
	Exit	1	1		389			389	392	0.0	0.0	0.000	A

2031 Furnessed Future + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	33.38	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Furnessed Future + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	411	100.000
2 - Leicester Road (E)		ONE HOUR	✓	703	100.000
3 - Sacheverell Way		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	27	272	112
	2 - Leicester Road (E)	254	5	444
	3 - Sacheverell Way	42	502	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	1
	3 - Sacheverell Way	2	1	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	35.00	4.4	D	378	567
2 - Leicester Road (E)	15.38	3.3	C	644	966
3 - Sacheverell Way	55.59	9.0	F	494	741

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	313	78	384	316	304	243	0.0	1.0	12.668	B
2 - Leicester Road (E)	530	133	113	529	526	587	0.0	1.2	8.455	A
3 - Sacheverell Way	405	101	218	409	411	424	0.0	1.0	12.573	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	365	91	445	367	359	285	1.0	1.9	16.652	C
2 - Leicester Road (E)	622	155	119	617	623	692	1.2	2.2	10.788	B
3 - Sacheverell Way	477	119	252	478	473	485	1.0	2.9	17.666	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	456	114	553	449	440	363	1.9	4.2	27.698	D
2 - Leicester Road (E)	780	195	155	783	772	847	2.2	2.9	15.241	C
3 - Sacheverell Way	605	151	325	591	577	613	2.9	7.9	38.982	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	456	114	551	456	456	357	4.2	4.4	35.000	D
2 - Leicester Road (E)	778	194	152	775	776	855	2.9	3.3	15.381	C
3 - Sacheverell Way	577	144	319	590	589	608	7.9	9.0	55.594	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	371	93	466	366	376	300	4.4	2.1	20.365	C
2 - Leicester Road (E)	630	158	124	631	638	708	3.3	1.9	11.036	B
3 - Sacheverell Way	495	124	263	503	518	492	9.0	2.8	29.100	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	309	77	375	309	317	242	2.1	1.0	13.147	B
2 - Leicester Road (E)	523	131	105	522	529	578	1.9	1.3	8.723	A
3 - Sacheverell Way	404	101	212	405	412	415	2.8	1.6	14.151	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	202	451	0.448	203	197	0.0	0.7	13.950	B
			2	1, 3	111	451	0.246	113	107	0.0	0.3	10.223	B
		2	1	(1, 2, 3)	313			313	308	0.0	0.0	0.023	A
	Exit	1	1		243			243	246	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	334	706	0.473	336	332	0.0	0.8	9.190	A
			2	1, 2	196	706	0.278	194	193	0.0	0.4	6.735	A
		2	1	(1, 2, 3)	530			530	531	0.0	0.0	0.177	A
	Exit	1	1		587			587	578	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	30	648	0.046	30	33	0.0	0.0	6.060	A
			2	2, 3	376	648	0.581	379	377	0.0	0.9	10.589	B
		2	1	(1, 2, 3)	405			406	414	0.0	0.1	2.346	A
	Exit	1	1		424			424	416	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	246	429	0.573	247	239	0.7	1.4	18.711	C
			2	1, 3	120	429	0.280	119	120	0.3	0.5	11.696	B
		2	1	(1, 2, 3)	365			366	363	0.0	0.0	0.272	A
	Exit	1	1		285			285	284	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	388	704	0.552	388	395	0.8	1.3	11.151	B
			2	1, 2	233	704	0.331	229	228	0.4	0.7	8.081	A
		2	1	(1, 2, 3)	622			621	626	0.0	0.2	0.759	A
	Exit	1	1		692			692	680	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	36	636	0.056	36	35	0.0	0.0	6.516	A
			2	2, 3	440	636	0.693	442	438	0.9	1.7	12.310	B
		2	1	(1, 2, 3)	477			476	476	0.1	1.2	5.747	A
	Exit	1	1		485			485	491	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	299	388	0.771	294	289	1.4	2.8	28.733	D
			2	1, 3	154	388	0.397	155	151	0.5	0.7	16.109	C
		2	1	(1, 2, 3)	456			453	447	0.0	0.7	3.026	A
	Exit	1	1		363			363	356	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	491	690	0.712	491	486	1.3	1.9	14.594	B
			2	1, 2	292	690	0.423	292	286	0.7	0.7	8.600	A
		2	1	(1, 2, 3)	780			784	775	0.2	0.3	2.880	A
	Exit	1	1		847			847	827	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	44	610	0.073	45	45	0.0	0.0	6.926	A
			2	2, 3	549	610	0.900	546	532	1.7	2.4	15.133	C
		2	1	(1, 2, 3)	605			593	580	1.2	5.4	24.408	C
	Exit	1	1		613			613	605	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	301	389	0.775	303	300	2.8	2.7	34.415	D
			2	1, 3	152	389	0.390	152	156	0.7	0.7	16.301	C
		2	1	(1, 2, 3)	456			453	455	0.7	1.1	6.734	A
	Exit	1	1		357			357	360	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	489	691	0.707	489	488	1.9	1.9	14.592	B
			2	1, 2	287	691	0.414	285	288	0.7	0.7	8.921	A
		2	1	(1, 2, 3)	778			775	775	0.3	0.7	2.891	A
	Exit	1	1		855			855	850	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	44	612	0.072	44	45	0.0	0.1	7.094	A
			2	2, 3	546	612	0.892	546	544	2.4	2.5	16.071	C
		2	1	(1, 2, 3)	577			590	589	5.4	6.4	40.181	E
	Exit	1	1		608			608	610	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	245	421	0.582	242	250	2.7	1.5	22.372	C
			2	1, 3	125	421	0.298	124	126	0.7	0.5	13.667	B
		2	1	(1, 2, 3)	371			370	371	1.1	0.1	1.233	A
	Exit	1	1		300			300	301	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	392	702	0.559	394	403	1.9	1.2	11.776	B
			2	1, 2	237	702	0.338	237	235	0.7	0.5	7.911	A
		2	1	(1, 2, 3)	630			629	635	0.7	0.2	0.735	A
	Exit	1	1		708			708	729	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	41	632	0.065	41	43	0.1	0.0	6.271	A
			2	2, 3	463	632	0.734	461	474	2.5	1.7	13.673	B
		2	1	(1, 2, 3)	495			504	514	6.4	1.0	16.220	C
	Exit	1	1		492			492	502	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	203	455	0.445	204	211	1.5	0.6	14.293	B
			2	1, 3	106	455	0.233	105	106	0.5	0.3	10.893	B
		2	1	(1, 2, 3)	309			309	313	0.1	0.0	0.034	A
	Exit	1	1		242			242	244	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	2, 3	334	709	0.471	332	334	1.2	0.9	9.369	A
			2	1, 2	189	709	0.267	190	195	0.5	0.4	7.036	A
		2	1	(1, 2, 3)	523			523	527	0.2	0.0	0.234	A
	Exit	1	1		578			578	595	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	34	650	0.052	34	31	0.0	0.1	5.968	A
			2	2, 3	369	650	0.568	371	381	1.7	1.0	10.979	B
		2	1	(1, 2, 3)	404			403	409	1.0	0.5	3.658	A
	Exit	1	1		415			415	418	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
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Filename: Junction 5 - Calibration Model - PM - Lane Sim.j9
Path: P:\Data\109003 - Ratby Phases 3 & 4 Outline\01 - WIP\Design\Transport Planning\Models\Models NH Response - Sep 25
Report generation date: 18/09/2025 13:49:47

»2024 Base, PM
»2028 Furnessed Future, PM
»2028 Furnessed Future + Dev, PM
»2031 Furnessed Future, PM
»2031 Furnessed Future + Dev, PM

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2024 Base			
1 - Leicester Road (W)	0.8	12.83		B
2 - Leicester Road (E)	3.7	10.87		B
3 - Sacheverell Way	4.0	29.07		D
	[Lane Simulation] - 2028 Furnessed Future			
1 - Leicester Road (W)	1.1	13.82		B
2 - Leicester Road (E)	4.0	12.70		B
3 - Sacheverell Way	6.6	47.06		E
	[Lane Simulation] - 2028 Furnessed Future + Dev			
1 - Leicester Road (W)	1.1	13.68		B
2 - Leicester Road (E)	4.0	12.27		B
3 - Sacheverell Way	6.5	47.30		E
	[Lane Simulation] - 2031 Furnessed Future			
1 - Leicester Road (W)	1.0	12.74		B
2 - Leicester Road (E)	4.7	13.90		B
3 - Sacheverell Way	7.3	49.95		E
	[Lane Simulation] - 2031 Furnessed Future + Dev			
1 - Leicester Road (W)	1.1	13.65		B
2 - Leicester Road (E)	5.3	15.26		C
3 - Sacheverell Way	7.9	54.17		F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	Junction 5:
Location	Ratby, Leicestershire
Site number	5
Date	18/09/2025
Version	P2
Status	Revised
Identifier	
Client	Lagan Homes
Jobnumber	109003
Enumerator	PFGROUP\JFarrell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1690877031	101	8.88

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	15.86	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Leicester Road (W)	
2	Leicester Road (E)	
3	Sacheverell Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Leicester Road (W)	3.70	8.50	40.7	32.9	38.5	34.0	
2 - Leicester Road (E)	3.70	7.50	35.7	30.5	38.5	18.0	
3 - Sacheverell Way	3.70	9.20	19.5	13.2	38.5	22.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Leicester Road (W)	Direct	To Calibrate and Validate to Observed Queues	-1000
2 - Leicester Road (E)	Direct	To Calibrate and Validate to Observed Queues	-250
3 - Sacheverell Way	Direct	To Calibrate and Validate to Observed Queues	-650

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	0.745	1189
2 - Leicester Road (E)	0.742	1846
3 - Sacheverell Way	0.705	1349

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Leicester Road (W)	Evenly split	10.00
2 - Leicester Road (E)	Evenly split	10.00
3 - Sacheverell Way	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Leicester Road (W)	Entry	1	1	2	✓	7.00		0	99999	
			2	1, 3	✓	7.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
2 - Leicester Road (E)	Entry	1	1	3	✓	5.50		0	99999	
			2	1, 2	✓	5.50		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				
3 - Sacheverell Way	Entry	1	1	1	✓	5.00		0	99999	
			2	2, 3	✓	5.00		0	99999	
		2	1	(1, 2, 3)		Infinity				
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Leicester Road (W)	Entry	1	1	0.372	594
			2	0.372	594
2 - Leicester Road (E)	Entry	1	1	0.371	923
			2	0.371	923
3 - Sacheverell Way	Entry	1	1	0.353	674
			2	0.353	674

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Leicester Road (W)	Leicester Road (E)	Sacheverell Way
1 - Leicester Road (W)	1	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
2 - Leicester Road (E)	1	1			✓
		2	✓	✓	
	2	1	✓	✓	✓
3 - Sacheverell Way	1	1	✓		
		2		✓	✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	221	100.000
2 - Leicester Road (E)		ONE HOUR	✓	933	100.000
3 - Sacheverell Way		ONE HOUR	✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	13	166	42
	2 - Leicester Road (E)	424	3	506
	3 - Sacheverell Way	52	354	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	12.83	0.8	B	200	300
2 - Leicester Road (E)	10.87	3.7	B	863	1295
3 - Sacheverell Way	29.07	4.0	D	372	558

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	164	41	274	162	166	362	0.0	0.4	8.911	A
2 - Leicester Road (E)	700	175	40	702	700	396	0.0	1.3	7.053	A
3 - Sacheverell Way	308	77	328	308	303	414	0.0	0.9	11.927	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	201	50	322	199	195	440	0.4	0.6	10.094	B
2 - Leicester Road (E)	842	210	51	842	839	471	1.3	1.8	7.647	A
3 - Sacheverell Way	368	92	393	369	365	499	0.9	1.6	16.862	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	239	60	381	235	237	528	0.6	0.8	12.350	B
2 - Leicester Road (E)	1034	259	60	1024	1022	556	1.8	3.7	10.871	B
3 - Sacheverell Way	444	111	471	438	431	613	1.6	3.3	23.234	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	244	61	387	244	241	544	0.8	0.7	12.834	B
2 - Leicester Road (E)	1043	261	62	1042	1046	569	3.7	3.2	10.847	B
3 - Sacheverell Way	444	111	488	444	442	616	3.3	4.0	29.073	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	194	48	330	192	197	438	0.7	0.4	10.398	B
2 - Leicester Road (E)	853	213	47	853	847	475	3.2	2.2	8.304	A
3 - Sacheverell Way	367	92	391	377	374	508	4.0	1.3	18.935	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	159	40	264	158	166	379	0.4	0.5	9.374	A
2 - Leicester Road (E)	709	177	38	714	707	384	2.2	1.2	6.792	A
3 - Sacheverell Way	299	75	342	302	301	411	1.3	0.9	11.159	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	123	492	0.250	122	122	0.0	0.3	9.275	A
			2	1, 3	41	492	0.083	40	43	0.0	0.1	7.875	A
		2	1	(1, 2, 3)	164			164	167	0.0	0.0	0.000	A
	Exit	1	1		362			362	364	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	384	908	0.422	384	381	0.0	0.8	7.251	A
			2	1, 2	316	908	0.348	318	319	0.0	0.5	6.426	A
		2	1	(1, 2, 3)	700			700	705	0.0	0.1	0.183	A
	Exit	1	1		396			396	390	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	37	559	0.066	37	38	0.0	0.0	7.107	A
			2	2, 3	271	559	0.486	271	265	0.0	0.9	12.251	B
		2	1	(1, 2, 3)	308			308	307	0.0	0.0	0.321	A
	Exit	1	1		414			414	415	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	151	474	0.318	149	148	0.3	0.5	10.703	B
			2	1, 3	50	474	0.106	51	47	0.1	0.1	8.176	A
		2	1	(1, 2, 3)	201			201	196	0.0	0.0	0.000	A
	Exit	1	1		440			440	436	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	459	904	0.508	461	457	0.8	1.0	7.779	A
			2	1, 2	382	904	0.422	381	382	0.5	0.6	6.595	A
		2	1	(1, 2, 3)	842			841	840	0.1	0.2	0.408	A
	Exit	1	1		471			471	469	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	50	536	0.093	50	47	0.0	0.1	7.368	A
			2	2, 3	318	536	0.594	319	318	0.9	1.4	16.081	C
		2	1	(1, 2, 3)	368			368	367	0.0	0.1	1.878	A
	Exit	1	1		499			499	493	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	179	453	0.395	176	177	0.5	0.7	13.457	B
			2	1, 3	60	453	0.132	60	60	0.1	0.1	8.935	A
		2	1	(1, 2, 3)	239			239	238	0.0	0.0	0.037	A
	Exit	1	1		528			528	533	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	570	901	0.633	569	561	1.0	1.8	9.966	A
			2	1, 2	458	901	0.508	456	461	0.6	1.1	8.151	A
		2	1	(1, 2, 3)	1034			1028	1027	0.2	0.8	1.722	A
	Exit	1	1		556			556	551	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	61	508	0.121	61	60	0.1	0.1	7.645	A
			2	2, 3	378	508	0.745	377	371	1.4	2.3	20.541	C
		2	1	(1, 2, 3)	444			440	434	0.1	0.9	4.337	A
	Exit	1	1		613			613	606	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	182	450	0.405	182	180	0.7	0.6	14.045	B
			2	1, 3	61	450	0.136	62	61	0.1	0.1	9.238	A
		2	1	(1, 2, 3)	244			244	241	0.0	0.0	0.003	A
	Exit	1	1		544			544	545	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	571	900	0.634	568	570	1.8	1.7	9.953	A
			2	1, 2	473	900	0.526	474	476	1.1	1.2	8.519	A
		2	1	(1, 2, 3)	1043			1044	1046	0.8	0.3	1.572	A
	Exit	1	1		569			569	568	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	59	502	0.118	59	57	0.1	0.1	8.186	A
			2	2, 3	386	502	0.768	384	385	2.3	2.7	22.216	C
		2	1	(1, 2, 3)	444			445	444	0.9	1.2	8.673	A
	Exit	1	1		616			616	616	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	147	471	0.313	145	149	0.6	0.3	10.980	B
			2	1, 3	46	471	0.098	47	48	0.1	0.1	8.575	A
		2	1	(1, 2, 3)	194			194	195	0.0	0.0	0.001	A
	Exit	1	1		438			438	439	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	471	906	0.520	471	462	1.7	1.4	8.663	A
			2	1, 2	383	906	0.422	381	385	1.2	0.8	6.844	A
		2	1	(1, 2, 3)	853			854	845	0.3	0.0	0.489	A
	Exit	1	1		475			475	480	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	536	0.090	49	46	0.1	0.1	7.787	A
			2	2, 3	322	536	0.601	328	328	2.7	1.2	16.778	C
		2	1	(1, 2, 3)	367			370	368	1.2	0.0	3.500	A
	Exit	1	1		508			508	499	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	121	496	0.244	120	123	0.3	0.4	9.668	A
			2	1, 3	38	496	0.077	38	43	0.1	0.1	8.526	A
		2	1	(1, 2, 3)	159			159	166	0.0	0.0	0.000	A
	Exit	1	1		379			379	371	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	379	909	0.417	383	383	1.4	0.7	7.016	A
			2	1, 2	331	909	0.364	332	324	0.8	0.5	6.245	A
		2	1	(1, 2, 3)	709			709	704	0.0	0.0	0.139	A
	Exit	1	1		384			384	388	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	40	554	0.072	40	38	0.1	0.1	6.957	A
			2	2, 3	259	554	0.468	262	263	1.2	0.8	11.532	B
		2	1	(1, 2, 3)	299			299	300	0.0	0.0	0.217	A
	Exit	1	1		411			411	415	0.0	0.0	0.000	A

2028 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	21.88	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	240	100.000
2 - Leicester Road (E)		ONE HOUR	✓	993	100.000
3 - Sacheverell Way		ONE HOUR	✓	435	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	47
	2 - Leicester Road (E)	470	3	520
	3 - Sacheverell Way	62	373	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	13.82	1.1	B	222	334
2 - Leicester Road (E)	12.70	4.0	B	908	1362
3 - Sacheverell Way	47.06	6.6	E	402	603

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	46	287	185	179	416	0.0	0.4	9.864	A
2 - Leicester Road (E)	754	188	48	750	743	423	0.0	1.9	7.053	A
3 - Sacheverell Way	329	82	371	332	326	427	0.0	1.0	12.528	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	54	338	218	211	498	0.4	0.7	10.798	B
2 - Leicester Road (E)	897	224	59	894	895	496	1.9	2.5	8.311	A
3 - Sacheverell Way	395	99	444	392	384	510	1.0	1.9	17.079	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	271	68	411	267	265	601	0.7	1.1	13.120	B
2 - Leicester Road (E)	1082	271	73	1088	1075	606	2.5	4.0	12.579	B
3 - Sacheverell Way	486	121	531	482	463	630	1.9	4.8	34.430	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	262	65	415	263	264	598	1.1	1.0	13.821	B
2 - Leicester Road (E)	1086	271	72	1090	1093	607	4.0	3.0	12.703	B
3 - Sacheverell Way	479	120	534	479	476	628	4.8	6.6	47.063	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	218	55	342	219	218	494	1.0	0.6	11.056	B
2 - Leicester Road (E)	882	221	57	885	896	505	3.0	2.2	9.013	A
3 - Sacheverell Way	392	98	441	395	411	501	6.6	2.1	24.783	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	46	286	182	183	415	0.6	0.5	9.797	A
2 - Leicester Road (E)	748	187	47	749	753	421	2.2	1.5	6.932	A
3 - Sacheverell Way	329	82	369	332	330	427	2.1	1.1	14.067	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	135	487	0.278	137	132	0.0	0.3	10.418	B
			2	1, 3	48	487	0.099	48	47	0.0	0.1	8.310	A
		2	1	(1, 2, 3)	183			183	181	0.0	0.0	0.000	A
	Exit	1	1		416			416	415	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	394	905	0.436	390	384	0.0	1.1	6.992	A
			2	1, 2	359	905	0.397	360	359	0.0	0.8	6.633	A
		2	1	(1, 2, 3)	754			753	751	0.0	0.1	0.235	A
	Exit	1	1		423			423	414	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	543	0.087	47	46	0.0	0.1	7.291	A
			2	2, 3	283	543	0.521	285	280	0.0	0.9	12.982	B
		2	1	(1, 2, 3)	329			330	330	0.0	0.0	0.346	A
	Exit	1	1		427			427	420	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	158	468	0.337	158	155	0.3	0.5	11.594	B
			2	1, 3	60	468	0.128	59	56	0.1	0.2	8.587	A
		2	1	(1, 2, 3)	218			218	212	0.0	0.0	0.000	A
	Exit	1	1		498			498	493	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	463	901	0.514	464	468	1.1	1.2	8.327	A
			2	1, 2	433	901	0.481	430	427	0.8	1.0	7.155	A
		2	1	(1, 2, 3)	897			896	896	0.1	0.2	0.547	A
	Exit	1	1		496			496	488	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	56	518	0.108	56	54	0.1	0.1	7.917	A
			2	2, 3	338	518	0.653	336	330	0.9	1.5	16.538	C
		2	1	(1, 2, 3)	395			394	387	0.0	0.2	1.708	A
	Exit	1	1		510			510	509	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	198	441	0.449	195	193	0.5	0.9	14.365	B
			2	1, 3	73	441	0.165	73	71	0.2	0.2	9.542	A
		2	1	(1, 2, 3)	271			271	266	0.0	0.0	0.045	A
	Exit	1	1		601			601	593	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	575	896	0.642	577	564	1.2	1.7	10.402	B
			2	1, 2	509	896	0.568	511	511	1.0	1.4	9.303	A
		2	1	(1, 2, 3)	1082			1085	1078	0.2	0.9	2.697	A
	Exit	1	1		606			606	592	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	74	487	0.152	74	68	0.1	0.2	8.919	A
			2	2, 3	409	487	0.840	408	395	1.5	2.8	24.447	C
		2	1	(1, 2, 3)	486			483	468	0.2	1.9	12.094	B
	Exit	1	1		630			630	617	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	191	440	0.434	192	193	0.9	0.8	15.333	C
			2	1, 3	71	440	0.162	72	71	0.2	0.2	9.574	A
		2	1	(1, 2, 3)	262			262	263	0.0	0.0	0.021	A
	Exit	1	1		598			598	602	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	573	896	0.639	575	574	1.7	1.4	10.562	B
			2	1, 2	514	896	0.574	515	519	1.4	1.2	9.181	A
		2	1	(1, 2, 3)	1086			1087	1091	0.9	0.4	2.819	A
	Exit	1	1		607			607	606	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	67	486	0.138	67	67	0.2	0.2	9.610	A
			2	2, 3	415	486	0.853	412	409	2.8	3.3	27.495	D
		2	1	(1, 2, 3)	479			482	478	1.9	3.1	22.054	C
	Exit	1	1		628			628	626	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	161	467	0.345	162	162	0.8	0.5	11.699	B
			2	1, 3	57	467	0.123	57	56	0.2	0.2	9.199	A
		2	1	(1, 2, 3)	218			218	216	0.0	0.0	0.004	A
	Exit	1	1		494			494	499	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	458	902	0.508	458	466	1.4	1.3	8.549	A
			2	1, 2	427	902	0.473	427	429	1.2	0.9	7.685	A
		2	1	(1, 2, 3)	882			885	894	0.4	0.1	0.889	A
	Exit	1	1		505			505	517	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	56	519	0.108	56	59	0.2	0.1	7.985	A
			2	2, 3	336	519	0.647	339	352	3.3	1.6	20.328	C
		2	1	(1, 2, 3)	392			392	403	3.1	0.4	6.615	A
	Exit	1	1		501			501	509	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	135	488	0.277	135	136	0.5	0.4	10.282	B
			2	1, 3	47	488	0.097	47	47	0.2	0.1	8.390	A
		2	1	(1, 2, 3)	183			183	183	0.0	0.0	0.000	A
	Exit	1	1		415			415	418	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	391	905	0.431	392	393	1.3	0.8	7.027	A
			2	1, 2	358	905	0.395	357	360	0.9	0.7	6.479	A
		2	1	(1, 2, 3)	748			748	751	0.1	0.0	0.175	A
	Exit	1	1		421			421	422	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	544	0.087	47	47	0.1	0.1	7.852	A
			2	2, 3	282	544	0.519	284	283	1.6	0.9	14.254	B
		2	1	(1, 2, 3)	329			329	328	0.4	0.0	0.799	A
	Exit	1	1		427			427	428	0.0	0.0	0.000	A

2028 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	21.57	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2028 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	243	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1002	100.000
3 - Sacheverell Way		ONE HOUR	✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	16	177	50
	2 - Leicester Road (E)	470	3	529
	3 - Sacheverell Way	62	376	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	13.68	1.1	B	222	332
2 - Leicester Road (E)	12.27	4.0	B	921	1382
3 - Sacheverell Way	47.30	6.5	E	401	602

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	183	46	290	184	185	417	0.0	0.6	9.715	A
2 - Leicester Road (E)	751	188	50	751	746	424	0.0	1.4	7.016	A
3 - Sacheverell Way	338	85	369	338	327	432	0.0	1.3	13.606	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	219	55	336	218	215	499	0.6	0.6	10.580	B
2 - Leicester Road (E)	905	226	62	905	903	493	1.4	2.2	8.346	A
3 - Sacheverell Way	388	97	447	387	384	519	1.3	2.0	18.027	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	268	67	417	264	261	615	0.6	1.1	12.712	B
2 - Leicester Road (E)	1102	275	73	1113	1100	608	2.2	3.0	12.266	B
3 - Sacheverell Way	480	120	555	477	466	631	2.0	5.8	37.957	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	264	66	413	265	266	605	1.1	1.1	13.677	B
2 - Leicester Road (E)	1101	275	73	1095	1091	605	3.0	4.0	11.654	B
3 - Sacheverell Way	480	120	540	479	478	628	5.8	6.5	47.303	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	217	54	341	218	221	492	1.1	0.6	11.774	B
2 - Leicester Road (E)	906	227	58	902	905	502	4.0	2.3	8.454	A
3 - Sacheverell Way	393	98	436	398	413	524	6.5	2.0	24.805	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	178	45	286	178	182	409	0.6	0.6	9.901	A
2 - Leicester Road (E)	763	191	48	761	771	415	2.3	1.7	7.035	A
3 - Sacheverell Way	329	82	364	331	332	445	2.0	1.1	13.463	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	133	486	0.274	134	134	0.0	0.4	10.435	B
			2	1, 3	50	486	0.103	50	50	0.0	0.1	7.779	A
		2	1	(1, 2, 3)	183			183	187	0.0	0.0	0.000	A
	Exit	1	1		417			417	414	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	394	904	0.436	394	390	0.0	0.8	7.094	A
			2	1, 2	357	904	0.395	357	356	0.0	0.6	6.628	A
		2	1	(1, 2, 3)	751			751	752	0.0	0.0	0.147	A
	Exit	1	1		424			424	416	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	50	544	0.093	51	48	0.0	0.0	7.612	A
			2	2, 3	288	544	0.529	287	279	0.0	1.1	13.707	B
		2	1	(1, 2, 3)	338			338	332	0.0	0.1	0.764	A
	Exit	1	1		432			432	428	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	157	469	0.335	156	156	0.4	0.4	11.342	B
			2	1, 3	61	469	0.131	62	59	0.1	0.2	8.548	A
		2	1	(1, 2, 3)	219			219	216	0.0	0.0	0.002	A
	Exit	1	1		499			499	493	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	474	900	0.527	473	475	0.8	1.2	8.182	A
			2	1, 2	432	900	0.480	432	429	0.6	1.0	7.538	A
		2	1	(1, 2, 3)	905			906	906	0.0	0.1	0.472	A
	Exit	1	1		493			493	491	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	54	517	0.104	54	52	0.0	0.1	7.134	A
			2	2, 3	335	517	0.648	334	331	1.1	1.7	17.187	C
		2	1	(1, 2, 3)	388			389	386	0.1	0.2	2.173	A
	Exit	1	1		519			519	519	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	194	439	0.442	191	190	0.4	0.9	13.786	B
			2	1, 3	74	439	0.168	73	71	0.2	0.2	9.790	A
		2	1	(1, 2, 3)	268			268	263	0.0	0.0	0.006	A
	Exit	1	1		615			615	605	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	572	896	0.638	576	574	1.2	1.4	10.517	B
			2	1, 2	534	896	0.596	536	527	1.0	1.2	9.132	A
		2	1	(1, 2, 3)	1102			1106	1102	0.1	0.4	2.417	A
	Exit	1	1		608			608	595	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	63	479	0.133	64	65	0.1	0.2	8.757	A
			2	2, 3	411	479	0.859	413	401	1.7	3.0	25.360	D
		2	1	(1, 2, 3)	480			475	472	0.2	2.7	14.694	B
	Exit	1	1		631			631	628	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	191	440	0.435	192	193	0.9	0.8	14.905	B
			2	1, 3	73	440	0.166	73	74	0.2	0.2	9.885	A
		2	1	(1, 2, 3)	264			264	266	0.0	0.0	0.156	A
	Exit	1	1		605			605	604	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	579	896	0.646	574	572	1.4	1.9	10.130	B
			2	1, 2	520	896	0.580	521	519	1.2	1.3	8.912	A
		2	1	(1, 2, 3)	1101			1098	1094	0.4	0.8	2.106	A
	Exit	1	1		605			605	605	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	70	484	0.144	69	69	0.2	0.2	9.139	A
			2	2, 3	411	484	0.849	410	409	3.0	3.3	27.542	D
		2	1	(1, 2, 3)	480			480	479	2.7	2.9	22.417	C
	Exit	1	1		628			628	627	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	160	467	0.342	161	163	0.8	0.5	12.607	B
			2	1, 3	57	467	0.123	58	58	0.2	0.1	9.227	A
		2	1	(1, 2, 3)	217			217	219	0.0	0.0	0.060	A
	Exit	1	1		492			492	499	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	485	901	0.538	481	477	1.9	1.3	8.286	A
			2	1, 2	420	901	0.466	421	428	1.3	0.8	7.459	A
		2	1	(1, 2, 3)	906			906	901	0.8	0.2	0.583	A
	Exit	1	1		502			502	519	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	59	521	0.113	59	59	0.2	0.1	8.020	A
			2	2, 3	337	521	0.647	339	354	3.3	1.6	19.845	C
		2	1	(1, 2, 3)	393			396	406	2.9	0.2	7.096	A
	Exit	1	1		524			524	521	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	129	488	0.265	129	134	0.5	0.4	10.551	B
			2	1, 3	49	488	0.101	48	48	0.1	0.1	8.062	A
		2	1	(1, 2, 3)	178			178	182	0.0	0.0	0.000	A
	Exit	1	1		409			409	416	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	408	905	0.450	406	410	1.3	1.0	7.172	A
			2	1, 2	355	905	0.392	355	361	0.8	0.7	6.521	A
		2	1	(1, 2, 3)	763			763	769	0.2	0.1	0.181	A
	Exit	1	1		415			415	423	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	546	0.087	47	46	0.1	0.1	7.574	A
			2	2, 3	282	546	0.517	284	286	1.6	1.0	13.695	B
		2	1	(1, 2, 3)	329			330	330	0.2	0.0	0.665	A
	Exit	1	1		445			445	446	0.0	0.0	0.000	A

2031 Furnessed Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	22.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Furnessed Future	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	241	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1034	100.000
3 - Sacheverell Way		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	175	49
	2 - Leicester Road (E)	495	3	536
	3 - Sacheverell Way	65	362	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	12.74	1.0	B	219	328
2 - Leicester Road (E)	13.90	4.7	B	954	1430
3 - Sacheverell Way	49.95	7.3	E	393	590

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	176	44	272	176	179	436	0.0	0.5	9.304	A
2 - Leicester Road (E)	787	197	47	786	779	401	0.0	1.6	7.181	A
3 - Sacheverell Way	317	79	389	319	316	444	0.0	1.0	12.372	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	214	54	334	213	213	524	0.5	0.6	10.718	B
2 - Leicester Road (E)	934	234	58	938	932	489	1.6	2.3	9.407	A
3 - Sacheverell Way	387	97	465	394	383	531	1.0	1.7	17.526	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	258	64	403	255	260	638	0.6	0.9	12.143	B
2 - Leicester Road (E)	1149	287	70	1145	1127	589	2.3	4.7	13.533	B
3 - Sacheverell Way	472	118	571	470	455	644	1.7	5.7	37.371	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	262	66	397	262	262	639	0.9	1.0	12.741	B
2 - Leicester Road (E)	1148	287	74	1153	1139	586	4.7	4.3	13.897	B
3 - Sacheverell Way	471	118	573	463	467	654	5.7	7.3	49.950	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	220	55	330	218	217	519	1.0	0.7	11.055	B
2 - Leicester Road (E)	920	230	56	919	935	492	4.3	2.3	9.022	A
3 - Sacheverell Way	385	96	463	386	407	512	7.3	2.0	27.757	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	181	45	278	182	182	431	0.7	0.5	9.816	A
2 - Leicester Road (E)	784	196	46	784	780	414	2.3	1.6	7.304	A
3 - Sacheverell Way	326	81	382	327	329	448	2.0	1.0	13.683	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	130	493	0.263	129	129	0.0	0.4	9.658	A
			2	1, 3	47	493	0.095	47	49	0.0	0.1	8.368	A
		2	1	(1, 2, 3)	176			176	180	0.0	0.0	0.000	A
	Exit	1	1		436			436	433	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	409	905	0.452	409	404	0.0	0.7	7.224	A
			2	1, 2	377	905	0.417	377	375	0.0	0.8	6.704	A
		2	1	(1, 2, 3)	787			787	785	0.0	0.0	0.210	A
	Exit	1	1		401			401	399	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	48	537	0.089	49	48	0.0	0.1	7.507	A
			2	2, 3	269	537	0.501	270	268	0.0	0.9	12.956	B
		2	1	(1, 2, 3)	317			317	320	0.0	0.0	0.220	A
	Exit	1	1		444			444	441	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	155	470	0.331	154	155	0.4	0.5	11.517	B
			2	1, 3	59	470	0.125	58	58	0.1	0.1	8.564	A
		2	1	(1, 2, 3)	214			214	214	0.0	0.0	0.002	A
	Exit	1	1		524			524	517	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	486	901	0.539	489	485	0.7	1.1	9.018	A
			2	1, 2	448	901	0.497	449	447	0.8	0.9	8.075	A
		2	1	(1, 2, 3)	934			934	934	0.0	0.3	0.842	A
	Exit	1	1		489			489	483	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	61	510	0.120	61	57	0.1	0.1	7.695	A
			2	2, 3	328	510	0.643	332	325	0.9	1.4	17.106	C
		2	1	(1, 2, 3)	387			389	385	0.0	0.1	1.807	A
	Exit	1	1		531			531	528	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	189	444	0.425	185	188	0.5	0.8	13.388	B
			2	1, 3	69	444	0.156	70	72	0.1	0.1	8.851	A
		2	1	(1, 2, 3)	258			258	262	0.0	0.0	0.008	A
	Exit	1	1		638			638	633	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	594	897	0.663	593	581	1.1	1.8	10.515	B
			2	1, 2	551	897	0.615	552	546	0.9	1.3	9.441	A
		2	1	(1, 2, 3)	1149			1145	1131	0.3	1.5	3.527	A
	Exit	1	1		589			589	575	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	70	473	0.148	69	71	0.1	0.2	8.908	A
			2	2, 3	396	473	0.837	400	384	1.4	2.8	25.397	D
		2	1	(1, 2, 3)	472			466	460	0.1	2.7	14.278	B
	Exit	1	1		644			644	634	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	190	446	0.425	189	189	0.8	0.8	13.903	B
			2	1, 3	73	446	0.163	74	73	0.1	0.2	9.700	A
		2	1	(1, 2, 3)	262			262	262	0.0	0.0	0.006	A
	Exit	1	1		639			639	628	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	600	895	0.671	599	596	1.8	1.8	10.761	B
			2	1, 2	550	895	0.614	553	542	1.3	1.4	9.746	A
		2	1	(1, 2, 3)	1148			1150	1139	1.5	1.1	3.627	A
	Exit	1	1		586			586	589	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	70	472	0.148	70	70	0.2	0.2	9.441	A
			2	2, 3	394	472	0.833	393	397	2.8	3.3	28.352	D
		2	1	(1, 2, 3)	471			464	469	2.7	3.9	24.348	C
	Exit	1	1		654			654	651	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	164	471	0.347	162	158	0.8	0.5	11.773	B
			2	1, 3	57	471	0.120	56	58	0.2	0.1	9.080	A
		2	1	(1, 2, 3)	220			220	215	0.0	0.0	0.003	A
	Exit	1	1		519			519	522	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	472	902	0.523	472	486	1.8	1.1	8.520	A
			2	1, 2	448	902	0.496	447	449	1.4	0.8	7.754	A
		2	1	(1, 2, 3)	920			920	930	1.1	0.4	0.908	A
	Exit	1	1		492			492	507	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	58	511	0.114	59	61	0.2	0.1	8.649	A
			2	2, 3	328	511	0.642	327	346	3.3	1.5	20.149	C
		2	1	(1, 2, 3)	385			386	399	3.9	0.4	9.919	A
	Exit	1	1		512			512	529	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	135	491	0.276	136	134	0.5	0.3	10.382	B
			2	1, 3	46	491	0.094	46	48	0.1	0.1	8.250	A
		2	1	(1, 2, 3)	181			181	181	0.0	0.0	0.000	A
	Exit	1	1		431			431	436	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	415	906	0.458	413	406	1.1	0.9	7.224	A
			2	1, 2	370	906	0.408	371	374	0.8	0.7	6.792	A
		2	1	(1, 2, 3)	784			784	779	0.4	0.0	0.298	A
	Exit	1	1		414			414	414	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	50	540	0.093	51	51	0.1	0.0	7.898	A
			2	2, 3	276	540	0.512	276	277	1.5	0.9	14.004	B
		2	1	(1, 2, 3)	326			326	326	0.4	0.0	0.756	A
	Exit	1	1		448			448	442	0.0	0.0	0.000	A

2031 Furnessed Future + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	1 - Leicester Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Leicester Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	Leicester Road/ Sacherverell Way Rdbt	Standard Roundabout		1, 2, 3	24.88	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Furnessed Future + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Leicester Road (W)		ONE HOUR	✓	251	100.000
2 - Leicester Road (E)		ONE HOUR	✓	1069	100.000
3 - Sacheverell Way		ONE HOUR	✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	17	174	60
	2 - Leicester Road (E)	494	3	572
	3 - Sacheverell Way	65	384	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Leicester Road (W)	2 - Leicester Road (E)	3 - Sacheverell Way
From	1 - Leicester Road (W)	0	0	1
	2 - Leicester Road (E)	0	0	3
	3 - Sacheverell Way	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Leicester Road (W)	13.65	1.1	B	230	345
2 - Leicester Road (E)	15.26	5.3	C	984	1476
3 - Sacheverell Way	54.17	7.9	F	412	617

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	190	47	288	189	190	433	0.0	0.6	9.741	A
2 - Leicester Road (E)	800	200	55	798	788	422	0.0	1.6	7.555	A
3 - Sacheverell Way	337	84	385	337	336	468	0.0	1.3	13.283	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	235	59	340	234	225	530	0.6	0.7	10.650	B
2 - Leicester Road (E)	969	242	71	971	965	503	1.6	2.4	9.482	A
3 - Sacheverell Way	401	100	472	398	398	570	1.3	2.7	19.896	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	276	69	420	275	275	635	0.7	1.1	13.098	B
2 - Leicester Road (E)	1179	295	81	1188	1165	613	2.4	4.5	14.864	B
3 - Sacheverell Way	499	125	564	491	475	706	2.7	7.5	43.207	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	277	69	419	274	277	632	1.1	1.1	13.651	B
2 - Leicester Road (E)	1191	298	84	1179	1176	609	4.5	5.3	15.259	C
3 - Sacheverell Way	494	124	564	487	492	699	7.5	7.9	54.166	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	219	55	355	221	223	509	1.1	0.7	11.575	B
2 - Leicester Road (E)	962	241	66	957	974	509	5.3	2.8	9.726	A
3 - Sacheverell Way	404	101	452	412	427	571	7.9	2.3	30.472	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	184	46	290	185	189	432	0.7	0.5	9.954	A
2 - Leicester Road (E)	803	201	58	807	812	418	2.8	1.6	7.906	A
3 - Sacheverell Way	335	84	386	336	340	478	2.3	1.3	14.958	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:15 - 16:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	135	487	0.277	134	132	0.0	0.4	10.297	B
			2	1, 3	55	487	0.113	55	58	0.0	0.1	8.470	A
		2	1	(1, 2, 3)	190			190	192	0.0	0.0	0.000	A
	Exit	1	1		433			433	431	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	428	902	0.474	426	420	0.0	0.9	7.599	A
			2	1, 2	372	902	0.412	372	369	0.0	0.6	6.776	A
		2	1	(1, 2, 3)	800			799	795	0.0	0.1	0.343	A
	Exit	1	1		422			422	418	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	50	539	0.093	50	51	0.0	0.1	7.537	A
			2	2, 3	287	539	0.532	287	285	0.0	1.1	13.464	B
		2	1	(1, 2, 3)	337			337	341	0.0	0.1	0.706	A
	Exit	1	1		468			468	465	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	164	467	0.352	163	157	0.4	0.6	11.477	B
			2	1, 3	71	467	0.152	71	68	0.1	0.1	8.688	A
		2	1	(1, 2, 3)	235			235	226	0.0	0.0	0.012	A
	Exit	1	1		530			530	520	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	516	897	0.576	515	516	0.9	1.2	8.902	A
			2	1, 2	454	897	0.506	456	448	0.6	0.9	7.917	A
		2	1	(1, 2, 3)	969			970	967	0.1	0.3	1.042	A
	Exit	1	1		503			503	499	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	60	508	0.118	60	59	0.1	0.1	8.229	A
			2	2, 3	338	508	0.666	338	339	1.1	2.0	18.466	C
		2	1	(1, 2, 3)	401			399	402	0.1	0.5	2.873	A
	Exit	1	1		570			570	569	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	195	438	0.446	194	193	0.6	0.9	14.455	B
			2	1, 3	81	438	0.184	81	82	0.1	0.2	9.838	A
		2	1	(1, 2, 3)	276			276	276	0.0	0.0	0.009	A
	Exit	1	1		635			635	626	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	637	893	0.714	643	624	1.2	1.7	11.437	B
			2	1, 2	544	893	0.610	546	541	0.9	1.4	9.720	A
		2	1	(1, 2, 3)	1179			1181	1169	0.3	1.3	4.219	A
	Exit	1	1		613			613	601	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	75	476	0.159	75	71	0.1	0.2	9.264	A
			2	2, 3	418	476	0.880	416	405	2.0	3.6	26.982	D
		2	1	(1, 2, 3)	499			494	481	0.5	3.7	18.596	C
	Exit	1	1		706			706	689	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	193	438	0.440	190	192	0.9	0.8	15.050	C
			2	1, 3	84	438	0.192	84	85	0.2	0.2	10.279	B
		2	1	(1, 2, 3)	277			277	277	0.0	0.0	0.068	A
	Exit	1	1		632			632	631	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	634	892	0.712	633	632	1.7	2.0	11.537	B
			2	1, 2	548	892	0.615	546	544	1.4	1.6	9.938	A
		2	1	(1, 2, 3)	1191			1183	1178	1.3	1.7	4.473	A
	Exit	1	1		609			609	616	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	71	475	0.150	71	71	0.2	0.2	9.565	A
			2	2, 3	415	475	0.873	415	420	3.6	3.3	29.222	D
		2	1	(1, 2, 3)	494			486	491	3.7	4.4	27.717	D
	Exit	1	1		699			699	698	0.0	0.0	0.000	A

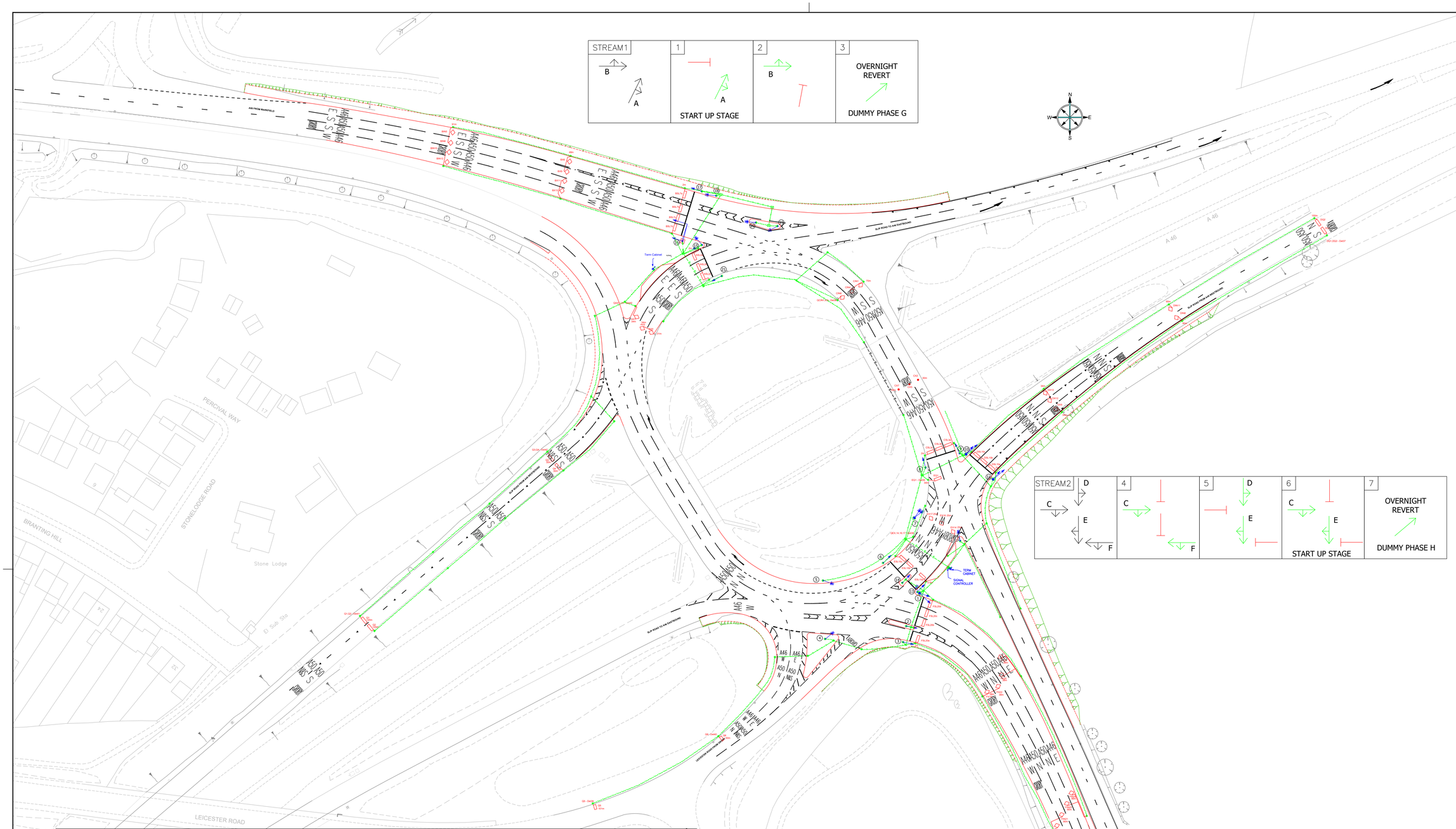
17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	153	462	0.332	155	156	0.8	0.5	12.529	B
			2	1, 3	66	462	0.143	66	67	0.2	0.2	9.348	A
		2	1	(1, 2, 3)	219			219	221	0.0	0.0	0.000	A
	Exit	1	1		509			509	524	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	525	898	0.584	520	521	2.0	1.7	9.156	A
			2	1, 2	438	898	0.488	437	452	1.6	0.9	7.888	A
		2	1	(1, 2, 3)	962			963	969	1.7	0.3	1.201	A
	Exit	1	1		509			509	526	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	60	515	0.116	59	59	0.2	0.1	8.625	A
			2	2, 3	348	515	0.676	353	367	3.3	1.8	22.187	C
		2	1	(1, 2, 3)	404			408	420	4.4	0.4	10.758	B
	Exit	1	1		571			571	573	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Leicester Road (W)	Entry	1	1	2	127	486	0.262	127	131	0.5	0.4	10.460	B
			2	1, 3	57	486	0.117	58	58	0.2	0.1	8.807	A
		2	1	(1, 2, 3)	184			184	188	0.0	0.0	0.000	A
	Exit	1	1		432			432	436	0.0	0.0	0.000	A
2 - Leicester Road (E)	Entry	1	1	3	432	901	0.479	433	436	1.7	0.9	8.027	A
			2	1, 2	372	901	0.412	374	377	0.9	0.6	6.810	A
		2	1	(1, 2, 3)	803			804	808	0.3	0.1	0.465	A
	Exit	1	1		418			418	425	0.0	0.0	0.000	A
3 - Sacheverell Way	Entry	1	1	1	47	538	0.087	47	48	0.1	0.1	7.526	A
			2	2, 3	288	538	0.535	289	292	1.8	1.1	14.787	B
		2	1	(1, 2, 3)	335			335	337	0.4	0.1	1.294	A
	Exit	1	1		478			478	481	0.0	0.0	0.000	A

Appendix F Brantings Roundabout Signal Specification



A46 /A50 MOVA SETUP DETAILS

		Stream 1							Stream 2						
		LINK No	IN	X	SL	LANE				LINK No	IN	X	SL	LANE
Phase	A	1		AX1	ASL2a	1		Phase	C	1	CIN1	CX2	CSL3a	1
		2		AX3	ASL2b	2				2	CIN4	CX5	CSL3b	2
		3		AX4	ASL2c	3				3	CIN6	CX7	CSL3c	3
Phase	B	4	BIN5	BX8	BSL7a	4		Phase	D	4	DIN8	DX9	DSL10a	4
		5	BIN8	BX9	BSL7b	5				5	DIN11	DX12	DSL10b	5
		6	BIN10	BX11	BSL7c	6				6		DX13	DSL10c	6
		7	BIN12	BX13	BSL7d	7		Phase	E	7		EX14	ESL15a	7
										8		EX16	ESL15b	8
										9		EX17	ESL15c	9
								Phase	F	10	FIN18	FX19	FSL20a	10
										11	FIN21	FX22	FSL20b	11
										12	FIN23	FX24	FSL20c	12
										13	FIN25	FX26	FSL20d	13
Revert	Stage 1	8		31	Day			**Revert**	Stage 4	14		31	Day	
	Stage 3	9		32	Night				Stage 7	15		32	Night	
MOVA LINKS				**Det No**	**Timer**	**Switch**		**MOVA LINKS**				**Det No**	**Timer**	**Switch**
Phase	C	10	Force	34				Phase	A	16	Force	34		
			Hold								Hold			
Phase	D	11	Force	35				Phase	B	17	Force	35		
			Hold								Hold			
Phase	F	12	Force	36										
			Hold											
Queue Loops	AX1,AX3,AX4	13		40				**Queue Loops**	CX1,CX4,CX6	18		36		
	Q1 & Q2	14		41					DQ1 & DQ2	19		37		
	Q3 & Q4	15		42					EX14,EX16,EX17	20		38		
									EQ	21		38		
									Q5	22		39		
									Q6	23		40		

Key

	Primary "RAG" Signal Head
	Secondary "RAG" Signal Head
	3.86m x 114mm slotless zinc galvanised pole for NAL Type B RS115DFx600 retention socket
	7m x 114mm slotless PVC coated zinc galvanised Tall pole for NAL Type B RS115DFx900 retention socket. (Low Level access pole to be provided)
	ELV Signals Junction controller
	Termination Cabinet
	Electric Feeder Pillar
	Mast Arm
PE	Photo Electric Cell
	Existing 6-way duct within bridge deck
	Proposed 1x100mm orange P.V.C. duct
	Proposed 2x100mm orange P.V.C. duct
	Proposed 4x100mm orange P.V.C. duct
	Proposed 6x100mm orange P.V.C. duct
	Proposed A Chamber which is to be "twin walled injection moulded polypropylene, pre-formed chamber 40 tonne loading including an extra deep cover & frame
	Proposed B Chamber which is to be "JB23 box, size 460 x 225 x 490 made from high density polyethylene with EN124 class B125 loading and including a drop in ductile iron cover"
	Stopline detector or 'Q' loop
	MOVA 'IN' or 'X' Loop
	Magnetometer detector stud
	Proposed Kerbline

NOTES:

Traffic signal company use only - Not to be used as lining or ducting drawing.

Particular Specification for the Supply and Installation of Traffic Signal Equipment at A50/A46 Roundabout Improvement.

Your tender will allow for the following:

Controller 1 (A50/A46)Termination Cabinet Northside
Termination Cabinet Southside

1 General

1.1 The traffic signal controller will be ELV.

1.2 The controller shall be cabled from the North and South side termination cabinets

1.3 A heater will be supplied and installed in all termination cabinets.

1.4 The signals contractor will allow for all cable connections for the communications system.

1.5 The controller is to have a MOVA unit installed which will have a GSM modem and Ariel fitted.

1.6 The tender should include for cabling and connections between the controller and pre-installed feeder pillar with dedicated power supply for traffic signals.

1.7 The controller and termination cabinets will be mounted on a NAL controller cabinet base. The signal contractor will supply the civil's contractor the correct type and size of cabinet base for controllers supplied.

1.8 Supply and install a suitable link cable between signal controller and north side termination cabinet to enable remote access from one controller to any other controller via the engineering handset port and via MOVA coms.

2 Delivery of other equipment

2.1 The signal equipment shall be delivered to site during installation.

3 Co-ordination

3.1 Where any part of the Installation Contractor's works has to be co-ordinated with the work of other parties, or is dependent on the completion by other parties, if the Installation Contractor is prevented from carrying out his work for a significant period of time, i.e. one for which he would normally intend to make an additional claim for payment, he shall inform the Contractor immediately and provide a copy of the details to the Client.

3.2 Any variations / written instructions must be submitted through the Contractor. Any instructions from the County Councils' representative will be given through the Contractor.

4 The Construction Design & Management Regulations 2007

4.1 This contract will be subject to The Construction (Design Management) Regulations 2007.

4.2 The planning Supervisor for this scheme is Karen Notman.

5 Use of Sub contractors

"Please note that if you are intending to use a sub-contractor to carry out any installation work on this site, the sub-contractor must be approved in advance by Leicestershire County Council. It will be the Contractors responsibility to ensure that any work undertaken by any approved sub-contractor fully complies with the requirements as stated in: the Quotation agreement, the schedule of Prices, the latest version of the Leicestershire County Council Specification for Traffic Signal works (currently Issue No. 1.3 10/97), the Particular Specification, the working drawings and any other relevant Documentation or Instructions issued by the Client. Any failure by a sub-contractor to meet the Clients requirements in full must be put right without the Client being charged any additional costs. The Client reserves the right to refuse to accept the use of a particular sub-contractor if the Client's representative is not satisfied that the sub-contractor can carry out the installation works to the required standard."

If you intend to use any sub-contractors you must declare this at the time of quotation otherwise any subsequent intention to use sub-contractors will not be accepted at the time of installation.

6 Programming of works

6.1 Refer to the schedule of constraints with regard to programming of works.

6.2 The Signal Company will be expected to co-ordinate their works with t the slot cutting contractor. All loop feeders are to be in place before slot cutting commences.

6.3 All traffic management is to be co-ordinated with civil's contractor including hoist for removing or installing / aligning signal heads.

7 Poles / Sockets

7.1 All poles are to be galvanised prior to the application of paint.

7.2 The position and orientation of pole sockets is to be agreed by Leicestershire County Council Engineer prior to installation.

7.3 All tall poles are to be 7 metres in length and be slot less for installation into a pole socket.

7.4 All tall poles are to have low level access for ease of maintenance.

8 Signal Heads

8.1 All new signal heads are to be Central Light Source and LED

8.2 The signal company will allow for supply and manufacturing of any bespoke brackets for mast arm signal heads.

MOVA aspects have been designed to Departmental Specification MCH 1542 "Installation Guide for MOVA"

REVISION APPROVED	AMENDMENT	SIGNED / DATE	REV.

Leicestershire County Council

DEPARTMENT OF HIGHWAYS TRANSPORTATION AND WASTE MANAGEMENT

INVESTOR IN PEOPLE

PHIL CROSSLAND
DIRECTOR

LEICESTERSHIRE HIGHWAYS

CLIENT:

TITLE:
GLENFIELD
A46/ A50 ROUNDABOUT
TRAFFIC SIGNAL DESIGN

DRAWING NUMBER	SCALE
GPFGP001.001/A4/12/1	1 to 500

PREPARED BY:	RPU	DATE:	21/03/14
CHECKED BY:	PV	SIZE :	A0
APPROVED BY:	PP	CORR. FILE:	

AUTOCAD PROJECT DIR: K:\AADesign\Traffic Signal Database\Groby\A50-A46 rbt
AUTOCAD FILENAME: GPFGP001_001_A4_12_1.dwg

COUNTY HALL * GLENFIELD * LEICESTER * LE3 8RJ
Tel:0116 3050001 * Direct Dial 305**** * Fax * 305****
E.Mail address: richard.upton@leics.gov.uk www.leics.gov.uk

02 X:\PUBLIC\ACAD2008 STD DRC BORDERS WITHOUT BSI LOGO(v mac!)\NEW LEICESTERSHIRE HIGHWAYS AUTOCAD DRC BORDERS\A0DB JAN2008

Project data

Project	A50/A46 Roundabout
Program date	22-11-2013
Version	1
Programmer	Neil Bell
Country	UK
City	Leicester
Street1	A50
Street2	A46
Controller type	1
12NC	0
Serial number	0
Report created at	3/26/2014 10:27 AM
Database file	A50-A46 Roundabout.cpf
Tool version	8.0.22.20312

Detailed description: * This is memofield DESCRIPTION

FACILITIES MODES AND PRIORITIES

FACILITIES

Facility	Enabled
Manual Control	1
Manual Step On Mode	0
CLF	1
UTC Facility	1
Hurry Call Mode	1
Priority	0

MODES AND PRIORITY

Mode	PRIO	Dem. set leave	Dem. set enter
Hurry call (high priority)	1	-	-
Urban Traffic Control (UTC)	4	-	-
Hurry call (std priority)	5	-	-
Manual control	2	Start-up demand set	-
Cableless linking facility (CLF)	6	-	-
Vehicle actuated (VA)	7	-	-
Simple fix time (FT)	8	Start-up demand set	-
Public service vehicle priority	-1	-	-
Selected cableless linking	3	-	-
Selected vehicle actuated	3	-	-
Selected fix time	3	Start-up demand set	-

```
Use hurry call (high priority) mode for all red moves: 1
```

STREAMS AND STAGES

STREAM

ID	Name	Type	Stu	Art	swoff	All Red
1	STREAM1	Junction	***	***	***	***
2	STREAM2	Junction				

STAGE

ID	Description	Stream	Set move before stage	Set move in stage	Ripple Change
1	STAGE1	1	0	1	0
2	STAGE2	1	0	1	0
3	ALLRED	1	0	1	0
4	STAGE4	2	0	1	0
5	STAGE5	2	0	1	0
6	STAGE6	2	0	1	0
7	ALLRED	2	0	1	0

Phases in stages

	A	B	C	D	E	F	G	H	I
1	X	-	-	-	-	-	-	-	-
2	-	X	-	-	-	-	-	-	-
3	-	-	-	-	-	-	X	-	-
4	-	-	X	-	-	X	-	-	-
5	-	-	-	X	X	-	-	-	-
6	-	-	X	-	X	-	-	-	X
7	-	-	-	-	-	-	-	X	-

PHASES

Types

ID	Phase	Site Phase	Description	Type	APH	Demand	NCH	WL	TAC	NODEMAND
1	A	A	North Circulatory	T	-	Start of Green	1	0	0	0
2	B	B	A50 Inbound	T	-	Start of Green	1	0	0	0
3	C	C	A46 South Circulatory	T	-	Start of Green	1	0	0	0
4	D	D	A46 Westbound Slip	T	-	Start of Green	1	0	0	0
5	E	E	A50 South Circulatory	T	-	Start of Green	1	0	0	0
6	F	F	A50 Inbound	T	-	Start of Green	1	0	0	0
7	G	G	Dummy Stream1 All Red Stage3	-	-	Start of Green	1	0	0	1
8	H	H	Dummy Stream 2 All Red Stage 7	-	-	Start of Green	1	0	0	1
9	I	I	Dummy Confirm For Stage 6	-	-	Start of Green	1	0	0	1

CONDITIONS

ID	Phase	Type	Appearance type	Termination type
1	A	T	Always	At end of stage
2	B	T	Always	At end of stage
3	C	T	Always	At end of stage
4	D	T	Always	At end of stage
5	E	T	Always	At end of stage
6	F	T	Always	At end of stage
7	G	-	Always	At end of stage
8	H	-	Always	At end of stage
9	I	-	Always	At end of stage

TIMINGS

ID	Phase	Type	Min green	Min red	Red/amber	Amber	Pre-timed
1	A	T	7	1	2	3	0
2	B	T	7	1	2	3	0
3	C	T	7	1	2	3	0
4	D	T	7	1	2	3	0
5	E	T	7	1	2	3	0
6	F	T	7	1	2	3	0
7	G	-	4	1			0
8	H	-	4	1			0
9	I	-	1	1			0

PEDESTRIAN TIMINGS

ID	Phase	Type	Period V	Period VI	Period VII	Period VIII
1	A	T				
2	B	T				
3	C	T				
4	D	T				
5	E	T				
6	F	T				
7	G	-				
8	H	-				
9	I	-				

Note: Use of zero second blackout is not current Department of Transport policy and should be discouraged

Revertive demands

ID	Phase	Type	RDC	Start-up	2	3	4	5	6	7	8
1	A	T	A	1	0	0	0	0	0	0	0
2	B	T	B	1	0	0	0	0	0	0	0
3	C	T	C	1	0	0	0	0	0	0	0
4	D	T	D	1	0	0	0	0	0	0	0
5	E	T	E	1	0	0	0	0	0	0	0
6	F	T	F	1	0	0	0	0	0	0	0
7	G	-	-	0	0	0	0	0	0	0	0
8	H	-	-	0	0	0	0	0	0	0	0
9	I	-	-	0	0	0	0	0	0	0	0

Switches

Lamp type: Halogen (70/30)

ID	Phase	Type	SWR	SWA	SWG	SWWL
1	A	T	R01	A01	G01	
2	B	T	R02	A02	G02	
3	C	T	R03	A03	G03	
4	D	T	R04	A04	G04	
5	E	T	R05	A05	G05	
6	F	T	R06	A06	G06	
7	G	-				
8	H	-				
9	I	-				

MINIMUM GREEN

PHASE	MIN	MAX
A	5	15
B	5	15
C	5	15
D	5	15
E	5	15
F	5	15
G	0	10
H	0	10
I	0	10

MAXIMUM GREEN

PHASE	MIN	MAX
A	0	100
B	0	100
C	0	100
D	0	100
E	0	100
F	0	100
G	0	100
H	0	100
I	0	100

.	MIN	MAX
Minimum green	3	99
Maximum green	0	120
Starting intergreen	8	8

PHASE TIMING SETS

PHASE	TYPE
A	T
B	T
C	T
D	T
E	T
F	T
G	-
H	-
I	-

Regular maximus

	1	2	3	4
A	20	20	20	10
B	30	22	22	10
C	38	26	26	10
D	20	16	16	10
E	36	26	26	10
F	16	16	18	10
G				
H				
I				

Alternative maximums

	1	2	3	4
A				
B				
C				
D				
E				
F				
G				
H				
I				

Variable blackout/red periods

	1	2	3	4
A				
B				
C				
D				
E				
F				
G				
H				
I				

Minimum green

	1	2	3	4
A				
B				
C				
D				
E				
F				
G				
H				
I				

PSVP inhibition times

	1	2	3	4
A				
B				
C				

	1	2	3	4
D				
E				
F				
G				
H				
I				

PSVP maximum green times

	1	2	3	4
A				
B				
C				
D				
E				
F				
G				
H				
I				

PHASE MATRICES

Starting intergreen 8

Handset maximum 30

Opposing and conflicting

	A	B	C	D	E	F	G	H	I
A	-	C	-	-	-	-	C	-	-
B	C	-	-	-	-	-	C	-	-
C	-	-	-	C	-	-	-	C	-
D	-	-	C	-	-	-	-	C	C
E	-	-	-	-	-	C	-	C	-
F	-	-	-	-	C	-	-	C	-
G	C	C	-	-	-	-	-	-	-
H	-	-	C	C	C	C	-	-	-
I	-	-	-	C	-	-	-	-	-

Intergreen times

	A	B	C	D	E	F	G	H	I
A		6					3		
B	6						3		
C				6				3	
D			6					3	6
E						7		3	
F					7			3	
G	2	2							
H			2	2	2	2			
I				6					

Handset intergreen limits

	A	B	C	D	E	F	G	H	I
A		5					3		
B	5						3		
C				5				3	
D			5					3	5
E						3		3	
F					3			3	
G	2	2							
H			2	2	2	2			
I				5					

RLM additional intergreens

	A	B	C	D	E	F	G	H	I
A									
B									
C									
D									
E									
F									
G									
H									
I									

RLM phase inhibits

	A	B	C	D	E	F	G	H	I
A	-	-	-	-	-	-	-	-	-
B	-	-	-	-	-	-	-	-	-
C	-	-	-	-	-	-	-	-	-
D	-	-	-	-	-	-	-	-	-
E	-	-	-	-	-	-	-	-	-
F	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-
I	-	-	-	-	-	-	-	-	-

PHASE DELAYS

ID	Phase	From	To	Delay Time	Associated Phase	Delay Type
1	E	4	3	4	-	Delay phase losing Right of Way

FIXED TIME

FIXEDTIME TO CURRENT MAXIMUM

STREAM	Fixed
STREAM1	1
STREAM2	1

Phase	Demand	Extend
A	1	1
B	1	1
C	1	1
D	1	1
E	1	1
F	1	1
G	0	0
H	0	0
I	0	0

STAGE MOVES

Move sets

Mode	SET
Hurry call (high priority)	1
Urban Traffic Control (UTC)	1
Hurry call (std priority)	1
Manual control	1
Cableless linking facility (CLF)	1
Vehicle actuated (VA)	1
Simple fix time (FT)	1
Public service vehicle priority	0

Set 1

	1	2	3	4	5	6	7
1	-	A	A	-	-	-	-
2	A	-	A	-	-	-	-
3	A	A	-	-	-	-	-
4	-	-	-	-	A	A	A
5	-	-	-	A	-	A	A
6	-	-	-	A	A	-	A
7	-	-	-	A	A	A	-

Set 2

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 3

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 4

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 5

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 6

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-

	1	2	3	4	5	6	7
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 7

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

Set 8

	1	2	3	4	5	6	7
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-

STREAM 1

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	FT	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	1	2	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	1	3	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	1	3	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	1	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	1	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	1	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	1	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	1	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	2	3	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	2	3	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	2	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	2	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	2	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	2	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	2	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	2	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	2	1	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	2	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	2	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	2	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	2	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	2	1	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	3	1	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	3	1	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	3	2	1	1	1	0	0	0	0	0	0	D	D	D	D

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	VA	3	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	3	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	3	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	3	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	3	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	3	2	0	0	0	0	0	0	0	0	0	D	D	D	D

STREAM 2

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	FT	4	5	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	4	5	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	4	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	4	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	4	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	4	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	4	5	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	4	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	4	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	4	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	4	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	4	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	4	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	4	6	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	4	7	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	4	7	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	4	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	4	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	4	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	4	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	4	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	5	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	5	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	5	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	5	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	5	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	5	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	5	6	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	5	7	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	5	7	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	5	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	5	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	5	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	5	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	5	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	5	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	5	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	5	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	5	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	5	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	5	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	5	4	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	6	7	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	6	7	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	6	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	6	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	6	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	6	7	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	6	7	1	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	6	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	6	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	6	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	6	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	6	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	6	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	6	4	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	6	5	1	1	1	0	0	0	0	0	0	D	D	D	D

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	VA	6	5	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	6	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	6	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	6	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	6	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	6	5	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	7	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	7	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	7	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	7	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	7	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	7	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	7	4	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	7	5	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	7	5	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	7	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	7	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	7	5	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	7	5	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	7	5	0	0	0	0	0	0	0	0	0	D	D	D	D
1	FT	7	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	7	6	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	7	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	7	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	7	6	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	7	6	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	7	6	0	0	0	0	0	0	0	0	0	D	D	D	D

MANUAL STAGE SELECTION

	1	2
But 1	1	6
But 2	2	4
But 3	1	5
But 4	1	4
But 5	2	6
But 6	-	-
But 7	-	-
But 8	-	-
But 9	-	-
But 10	-	-
But 11	-	-
But 12	-	-
But 13	-	-
But 14	-	-
But 15	-	-
But 16	-	-

Detectors

Application

ID	Detector	Type	Phase	DTO	DTC	DTG1	DTG2	DKS	DEM	CANCEL
1	AX1	External vehicle loop	A			4		-	1	0
2	ASL2a	External vehicle loop	A					-	1	0
3	ASL2b	External vehicle loop	A					-	1	0
4	ASL2c	External vehicle loop	A					-	1	0
5	AX3	External vehicle loop	A			4		-	1	0
6	AX4	External vehicle loop	A			4		-	1	0
7	BIN5	External vehicle loop	B			4		-	0	0
8	BX6	External vehicle loop	B			4		-	1	0
9	BSL7a	External vehicle loop	B					-	1	0
10	BSL7b	External vehicle loop	B					-	1	0
11	BSL7c	External vehicle loop	B					-	1	0
12	BSL7d	External vehicle loop	B					-	1	0
13	BIN8	External vehicle loop	B			4		-	0	0
14	BX9	External vehicle loop	B			4		-	1	0
15	BIN10	External vehicle loop	B			4		-	0	0
16	BX11	External vehicle loop	B			4		-	1	0
17	BIN12	External vehicle loop	B			4		-	0	0
18	BX13	External vehicle loop	B			4		-	1	0
19	CIN1	Vehicle loop	C			4		-	0	0
20	CX2	Vehicle loop	C			4		-	1	0
21	CSL3a	Vehicle loop	C					-	1	0
22	CSL3b	Vehicle loop	C					-	1	0
23	CSL3c	Vehicle loop	C					-	1	0
24	CIN4	Vehicle loop	C			4		-	0	0
25	CX5	Vehicle loop	C			4		-	1	0
26	CIN6	Vehicle loop	C			4		-	0	0
27	CX7	Vehicle loop	C			4		-	1	0
28	DIN8	Vehicle loop	D			4		-	0	0
29	DX9	Vehicle loop	D			4		-	1	0
30	DSL10a	Vehicle loop	D					-	1	0
31	DSL10b	Vehicle loop	D					-	1	0
32	DSL10c	Vehicle loop	D					-	1	0
33	DIN11	Vehicle loop	D			4		-	0	0
34	DX12	Vehicle loop	D			4		-	1	0
35	DX13	Vehicle loop	D			4		-	1	0
36	EX14	Vehicle loop	E			4		-	1	0
37	ESL15a	Vehicle loop	E					-	1	0
38	ESL15b	Vehicle loop	E					-	1	0
39	ESL15c	Vehicle loop	E					-	1	0
40	EX16	Vehicle loop	E			4		-	1	0
41	EX17	Vehicle loop	E			4		-	1	0
42	FIN18	Vehicle loop	F			4		-	0	0
43	FX19	Vehicle loop	F			4		-	1	0
44	FSL20a	Vehicle loop	F					-	1	0
45	FSL20b	Vehicle loop	F					-	1	0
46	FSL20c	Vehicle loop	F					-	1	0
47	FSL20d	Vehicle loop	F					-	1	0
48	FIN21	Vehicle loop	F			4		-	0	0
49	FX22	Vehicle loop	F			4		-	1	0
50	FIN23	Vehicle loop	F			4		-	0	0
51	FX24	Vehicle loop	F			4		-	1	0
52	FIN25	Vehicle loop	F			4		-	0	0
53	FX26	Vehicle loop	F			4		-	1	0
54	Q1	External vehicle loop	-					-	0	0
55	Q2	External vehicle loop	-					-	0	0
56	Q3	External vehicle loop	-					-	0	0
57	Q4	External vehicle loop	-					-	0	0
58	Q5	Vehicle loop	-					-	0	0
59	Q6	Vehicle loop	-					-	0	0
60	DQ1	Vehicle loop	-					-	0	0
61	DQ2	Vehicle loop	-					-	0	0
62	EQ1	Vehicle loop	-					-	0	0
63	Q7	Vehicle loop	-	6	4			-	0	0

ID	Detector	Type	Phase	DTO	DTC	DTG1	DTG2	DKS	DEM	CANCEL
64	Q8	Vehicle loop	-	6	4			-	0	0
65	AXQ	-	-	6	4			-	0	0
66	CINQ	-	-	6	4			-	0	0
67	DQ1_2	-	-	10	4			-	0	0
68	EXQ	-	-	6	4			-	0	0
69	EQ	-	-	6	4			-	0	0
70	Q1_2	-	-	8	4			-	0	0
71	Q3_4	-	-	10	6			-	0	0
72	Q_5	-	H	10	4			-	1	0
73	Q_6	-	H	6	6			-	1	0

Hardware

ID	Detector	Type	Inv	Unit	Nr	Occ1	Noc1	Occ2	Noc2	Occ3	Noc3	Occ4	Noc4	ErrState	OkCount
1	AX1	External vehicle loop	0	IO1616-2	1	30	1800							Occupied	32
2	ASL2a	External vehicle loop	0	IO1616-2	2	30	1800							Occupied	32
3	ASL2b	External vehicle loop	0	IO1616-2	3	30	1800							Occupied	32
4	ASL2c	External vehicle loop	0	IO1616-2	4	30	1800							Occupied	32
5	AX3	External vehicle loop	0	IO1616-2	5	30	1800							Occupied	32
6	AX4	External vehicle loop	0	IO1616-2	6	30	1800							Occupied	32
7	BIN5	External vehicle loop	0	IO1616-2	7	30	1800							Occupied	32
8	BX6	External vehicle loop	0	IO1616-2	8	30	1800							Occupied	32
9	BSL7a	External vehicle loop	0	IO1616-2	9	30	1800							Occupied	32
10	BSL7b	External vehicle loop	0	IO1616-2	10	30	1800							Occupied	32
11	BSL7c	External vehicle loop	0	IO1616-2	11	30	1800							Occupied	32
12	BSL7d	External vehicle loop	0	IO1616-2	12	30	1800							Occupied	32
13	BIN8	External vehicle loop	0	IO1616-2	13	30	1800							Occupied	32
14	BX9	External vehicle loop	0	IO1616-2	14	30	1800							Occupied	32
15	BIN10	External vehicle loop	0	IO1616-2	15	30	1800							Occupied	32
16	BX11	External vehicle loop	0	IO1616-2	16	30	1800							Occupied	32
17	BIN12	External vehicle loop	0	IO1616-3	1	30	1800							Occupied	32
18	BX13	External vehicle loop	0	IO1616-3	2	30	1800							Occupied	32
19	CIN1	Vehicle loop	0	MTS4E-1	1	30	1800							Occupied	32
20	CX2	Vehicle loop	0	MTS4E-11	1	30	1800							Occupied	32
21	CSL3a	Vehicle loop	0	MTS4E-1	2	30	1800							Occupied	32
22	CSL3b	Vehicle loop	0	MTS4E-1	3	30	1800							Occupied	32
23	CSL3c	Vehicle loop	0	MTS4E-1	4	30	1800							Occupied	32
24	CIN4	Vehicle loop	0	MTS4E-2	1	30	1800							Occupied	32
25	CX5	Vehicle loop	0	MTS4E-11	2	30	1800							Occupied	32
26	CIN6	Vehicle loop	0	MTS4E-2	2	30	1800							Occupied	32
27	CX7	Vehicle loop	0	MTS4E-11	3	30	1800							Occupied	32
28	DIN8	Vehicle loop	0	MTS4E-2	3	30	1800							Occupied	32
29	DX9	Vehicle loop	0	MTS4E-2	4	30	1800							Occupied	32
30	DSL10a	Vehicle loop	0	MTS4E-3	1	30	1800							Occupied	32
31	DSL10b	Vehicle loop	0	MTS4E-3	2	30	1800							Occupied	32
32	DSL10c	Vehicle loop	0	MTS4E-3	3	30	1800							Occupied	32
33	DIN11	Vehicle loop	0	MTS4E-3	4	30	1800							Occupied	32
34	DX12	Vehicle loop	0	MTS4E-4	1	30	1800							Occupied	32
35	DX13	Vehicle loop	0	MTS4E-4	2	30	1800							Occupied	32
36	EX14	Vehicle loop	0	MTS4E-4	3	30	1800							Occupied	32
37	ESL15a	Vehicle loop	0	MTS4E-4	4	30	1800							Occupied	32
38	ESL15b	Vehicle loop	0	MTS4E-5	1	30	1800							Occupied	32
39	ESL15c	Vehicle loop	0	MTS4E-5	2	30	1800							Occupied	32
40	EX16	Vehicle loop	0	MTS4E-5	3	30	1800							Occupied	32
41	EX17	Vehicle loop	0	MTS4E-5	4	30	1800							Occupied	32
42	FIN18	Vehicle loop	0	MTS4E-6	1	30	1800							Occupied	32
43	FX19	Vehicle loop	0	MTS4E-6	2	30	1800							Occupied	32
44	FSL20a	Vehicle loop	0	MTS4E-6	3	30	1800							Occupied	32
45	FSL20b	Vehicle loop	0	MTS4E-6	4	30	1800							Occupied	32
46	FSL20c	Vehicle loop	0	MTS4E-7	1	30	1800							Occupied	32
47	FSL20d	Vehicle loop	0	MTS4E-7	2	30	1800							Occupied	32
48	FIN21	Vehicle loop	0	MTS4E-7	3	30	1800							Occupied	32
49	FX22	Vehicle loop	0	MTS4E-7	4	30	1800							Occupied	32
50	FIN23	Vehicle loop	0	MTS4E-8	1	30	1800							Occupied	32
51	FX24	Vehicle loop	0	MTS4E-8	2	30	1800							Occupied	32

ID	Detector	Type	Inv	Unit	Nr	Occ1	Noc1	Occ2	Noc2	Occ3	Noc3	Occ4	Noc4	ErrState	OkCount
52	FIN25	Vehicle loop	0	MTS4E-8	3	30	1800							Occupied	32
53	FX26	Vehicle loop	0	MTS4E-8	4	30	1800							Occupied	32
54	Q1	External vehicle loop	0	IO1616-3	3	30	1800							Unoccupied	
55	Q2	External vehicle loop	0	IO1616-3	4	30	1800							Unoccupied	
56	Q3	External vehicle loop	0	IO1616-3	5	30	1800							Unoccupied	
57	Q4	External vehicle loop	0	IO1616-3	6	30	1800							Unoccupied	
58	Q5	Vehicle loop	0	MTS4E-9	1	30	1800							Occupied	32
59	Q6	Vehicle loop	0	MTS4E-9	2	30	1800							Occupied	32
60	DQ1	Vehicle loop	0	MTS4E-9	3	30	1800							Occupied	32
61	DQ2	Vehicle loop	0	MTS4E-9	4	30	1800							Occupied	32
62	EQ1	Vehicle loop	0	MTS4E-10	1	30	1800							Occupied	32
63	Q7	Vehicle loop	0	MTS4E-10	2	30	1800							Occupied	32
64	Q8	Vehicle loop	0	MTS4E-10	3	30	1800							Occupied	32
65	AXQ	-	0	DUMMY-1	1									-	
66	CINQ	-	0	DUMMY-2	1									-	
67	DQ1_2	-	0	DUMMY-3	1									-	
68	EXQ	-	0	DUMMY-4	1									-	
69	EQ	-	0	DUMMY-5	1									-	
70	Q1_2	-	0	DUMMY-6	1									-	
71	Q3_4	-	0	DUMMY-7	1									-	
72	Q_5	-	0	DUMMY-8	1									-	
73	Q_6	-	0	DUMMY-9	1									-	

Supervision time

Day	On time	Off time
Monday	00:00	24:00
Tuesday	00:00	24:00
Wednesday	00:00	24:00
Thursday	00:00	24:00
Friday	00:00	24:00
Saturday	00:00	24:00
Sunday	00:00	24:00

MASTER TIME CLOCK

MTC table

ID	Function	Arg1	Arg2	Start	End	M	N	W	T	F	S	S	1	2	3	4	5	6	7	8	Description
1	Control plan	1	0	00:00:00	24:00:00	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	
2	Timing set	2	0	06:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
3	CLF plan	2	0	06:00:01	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
4	Timing set	1	0	07:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
5	CLF plan	2	0	06:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
6	Timing set	2	0	09:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
7	CLF plan	2	0	09:30:01	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
8	Timing set	3	0	16:15:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
9	CLF plan	3	0	16:15:01	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
10	Timing set	2	0	18:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
11	CLF plan	2	0	18:30:01	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
12	Timing set	4	0	22:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
13	Timing set	4	0	00:00:00	06:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
14	CLF plan	4	0	22:30:01	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
15	CLF plan	4	0	00:00:00	06:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
16	Timing set	2	0	08:00:00	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
17	CLF plan	2	0	08:00:01	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
18	Timing set	4	0	21:30:00	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
19	CLF plan	4	0	21:30:01	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
20	CLF plan	4	0	00:00:00	08:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
21	Timing set	2	0	09:00:00	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
22	CLF plan	2	0	09:00:01	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
23	Timing set	4	0	21:30:00	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
24	CLF plan	4	0	21:30:01	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
25	CLF plan	4	0	00:00:00	09:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
26	User function 1	1	0	00:00:00	24:00:00	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	

CONFLICT EXTENSION RED

CABLELESS LINKING FACILITY

Plans

Global settings

Sync. Mode: Daily

Sync. Day: Monday

Ref. time: 02:00

No	Cycle	Offset	EntryTime	ExitTime
1	50	0		
2	60	0		
3	55	0		
4	50	0		

Functions and actions

PLAN 1

No	Time	Influence	Stage	Stream
1	5	IM: Immediate move	1	1
2	3	IM: Immediate move	5	2
3	22	IM: Immediate move	2	1
4	20	IM: Immediate move	6	2
5	32	IM: Immediate move	4	2

PLAN 2

No	Time	Influence	Stage	Stream
1	0	IM: Immediate move	1	1
2	0	IM: Immediate move	5	2
3	28	IM: Immediate move	2	1
4	22	IM: Immediate move	6	2
5	37	IM: Immediate move	4	2

PLAN 3

No	Time	Influence	Stage	Stream
1	0	IM: Immediate move	1	1
2	0	IM: Immediate move	5	2
3	22	IM: Immediate move	2	1
4	20	IM: Immediate move	6	2
5	34	IM: Immediate move	4	2

PLAN 4

No	Time	Influence	Stage	Stream
1	0	IM: Immediate move	1	1
2	3	IM: Immediate move	5	2
3	24	IM: Immediate move	6	2
4	27	IM: Immediate move	2	1
5	31	IM: Immediate move	4	2

OTU

Units

GENERAL INTEGRAL OTU OPTIONS

Integral OTU: -

DISCRETE OTU

ID	Invert control bits	Invert reply bits
1	0	1

Control and reply bits

CONTROL BITS

ID	Function	Arg	Label
1	F	1	F1
2	F	2	F2
3	F	3	F3
4	F	4	F4
5	F	5	F5
6	F	6	F6
7	F	7	F7
8	-	0	
9	-	0	
10	-	0	
11	-	0	
12	-	0	
13	-	0	
14	-	0	
15	-	0	
16	TO	0	TO

REPLY BITS

ID	Function	Arg	Label
1	G	1	G1
2	G	2	G2
3	G	3	G3
4	G	4	G4
5	G	5	G5
6	G	6	G6
7	G	7	G7
8	UF	1	PC
9	UF	2	PE
10	-	0	
11	-	0	
12	-	0	
13	-	0	
14	-	0	
15	-	0	
16	-	0	

RTC

Synchronisation time (UTC TS input)	00:00
Confirm time (UTC RT output)	0:0:0

SPECIAL UTC REPLY BITS

.	G1/G2	RR
Manual mode operative	0	1
Manual mode selected	0	1
No lamp power (excluding RLM and PT)	1	.
Normal not selected on the manual panel	0	1

UG405 Bit Mapping

Settings

Enable UG405	0
OTU System Code Number(SCN)	

CONTROL BITS

ID	Function	Arg	Label	Controller SCN	UG405 Name	Bit Index
1	F	1	F1		-	
2	F	2	F2		-	
3	F	3	F3		-	
4	F	4	F4		-	
5	F	5	F5		-	
6	F	6	F6		-	
7	F	7	F7		-	
8	-	0			-	
9	-	0			-	
10	-	0			-	
11	-	0			-	
12	-	0			-	
13	-	0			-	
14	-	0			-	
15	-	0			-	
16	TO	0	TO		-	

REPLY BITS

ID	Function	Arg	Label	Controller SCN	UG405 Name	Bit Index
1	G	1	G1		-	
2	G	2	G2		-	
3	G	3	G3		-	
4	G	4	G4		-	
5	G	5	G5		-	
6	G	6	G6		-	
7	G	7	G7		-	
8	UF	1	PC		-	
9	UF	2	PE		-	
10	-	0			-	
11	-	0			-	
12	-	0			-	
13	-	0			-	
14	-	0			-	
15	-	0			-	
16	-	0			-	

UTC FAULT LOGGING REPLY BITS (FLOG)

General Faults and Events

Fault ID	Fault/Event Names	Flog1	Flog2	Flog3	Flog4
0	POWERFAIL	0	0	0	0
1	Mains Low	0	0	0	0
2	CPU-B CRC CODE (CRC check failed)	0	0	0	0
3	CPU-B CRC DATA (configuration error)	0	0	0	0
4	CPU-B LCM (error in current measuring)	0	0	0	0
6	CPU-B LCM DIAG (communication problem)	0	0	0	0
7	CPU-B LOT SLOW	0	0	0	0
8	CPU-A ALARM (CPU-A has switched the lights off.)	0	0	0	0
9	XP ALARM	0	0	0	0
10	USER ALARM	0	0	0	0
11	MAINS SYNC	0	0	0	0
13	LOC-LOC	0	0	0	0
14	CPU-B COM CPU-A	0	0	0	0
25	CPU-A COM CPU-B	0	0	0	0
28	CPU-A (EXT)	0	0	0	0
52	DEADLOCK SG	0	0	0	0
81	PHASE INH SG ON	0	0	0	0
100	CPU-A XLM name	0	0	0	0
101	CONFLICT	0	0	0	0
102	OMS ERROR	0	0	0	0
110	PARAM LOG 1	0	0	0	0
151	BATTERY ERROR	0	0	0	0
193	DIMMING FAIL	0	0	0	0
194	DIMMING OK	0	0	0	0
217	MIMIC MODE ON	0	0	0	0
218	CPU-A/B ID	0	0	0	0
243	WATCHDOG	0	0	0	0
250	MAINS OFF	0	0	0	0

Functional safety errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
0	Switch off	0	0	0	0
1	Conflict between SG1 and SG2	0	0	0	0
2	Minimum timing violation of SG in state S	0	0	0	0
3	Maximum timing violation of SG in state S	0	0	0	0
4	Sequence error for SG in state S	0	0	0	0
5	Minimum timing violation of stream XP in state S	0	0	0	0
6	Maximum timing violation of stream XP in state S	0	0	0	0
7	Sequence error for stream XP in state S	0	0	0	0

Unit Errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
1	LCM unit has failed or is missing	0	0	0	0
9	PAR-IO16 Error	0	0	0	0
10	Integral OTU has lost communication with the in-station or off-line due to F bit timeout.	0	0	0	0
11	MTS4E detector panel Error	0	0	0	0
13	Manual panel Error	0	0	0	0

Lamp switch errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
0	All switches	0	0	0	0

Lamp errors

Fault ID	Error Names	Flog1 FIRST LAMP	Flog1 SECOND LAMP	Flog1 LAST LAMP	Flog2 FIRST LAMP	Flog2 SECOND LAMP	Flog2 LAST LAMP	Flog3 FIRST LAMP	Flog3 SECOND LAMP	Flog3 LAST LAMP	Flog4 FIRST LAMP	Flog4 SECOND LAMP	Flog4 LAST LAMP
0	All Lamps	0	0	0	0	0	0	0	0	0	0	0	0

Detector errors

ID	Detectors	Flog1 Fault	Flog1 Active alaram	Flog1 Inactive alaram	Flog1 Override	Flog2 Fault	Flog2 Active alaram	Flog2 Inactive alaram	Flog2 Override	Flog3 Fault	Flog3 Active alaram	Flog3 Inactive alaram	Flog3 Override	Flog4 Fault	Flog4 Active alaram	Flog4 Inactive alaram	Flog4 Override
1	AX1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Detectors	Flog1 Fault	Flog1 Active alaram	Flog1 Inactive alaram	Flog1 Override	Flog2 Fault	Flog2 Active alaram	Flog2 Inactive alaram	Flog2 Override	Flog3 Fault	Flog3 Active alaram	Flog3 Inactive alaram	Flog3 Override	Flog4 Fault	Flog4 Active alaram	Flog4 Inactive alaram	Flog4 Override
2	ASL2a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	ASL2b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	ASL2c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	AX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	AX4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	BIN5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	BX6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	BSL7a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	BSL7b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	BSL7c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	BSL7d	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	BIN8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	BX9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	BIN10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	BX11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	BIN12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	BX13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	CIN1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	CX2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	CSL3a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	CSL3b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	CSL3c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CIN4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	CX5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CIN6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	CX7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	DIN8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	DX9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	DSL10a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	DSL10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	DSL10c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	DIN11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	DX12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	DX13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	EX14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	ESL15a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	ESL15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	ESL15c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	EX16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	EX17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	FIN18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	FX19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	FSL20a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	FSL20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	FSL20c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	FSL20d	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	FIN21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	FX22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	FIN23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	FX24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	FIN25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	FX26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Q1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Q2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Q3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	Q4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Q5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Q6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	DQ1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	DQ2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	EQ1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	Q7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	Q8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	AXQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	CINQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Detectors	Flog1 Fault	Flog1 Active alaram	Flog1 Inactive alaram	Flog1 Override	Flog2 Fault	Flog2 Active alaram	Flog2 Inactive alaram	Flog2 Override	Flog3 Fault	Flog3 Active alaram	Flog3 Inactive alaram	Flog3 Override	Flog4 Fault	Flog4 Active alaram	Flog4 Inactive alaram	Flog4 Override
67	DQ1_2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	EXQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	EQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	Q1_2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	Q3_4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	Q_5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	Q_6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HURRY CALLS

PUBLIC SERVICE VEHICLE PRIORITY

SPEED ASSESSMENT AND SPEED DISCRIMINATION

GENERAL PURPOSE I/O

Hardware

INPUTS

ID	Input	Invert	Toggle	Unit	Bit	Flag
1	UTC_I1	0	0	IO1616-1	1	
2	UTC_I2	0	0	IO1616-1	2	
3	UTC_I3	0	0	IO1616-1	3	
4	UTC_I4	0	0	IO1616-1	4	
5	UTC_I5	0	0	IO1616-1	5	
6	UTC_I6	0	0	IO1616-1	6	
7	UTC_I7	0	0	IO1616-1	7	
8	UTC_I8	0	0	IO1616-1	8	
9	UTC_I9	0	0	IO1616-1	9	
10	UTC_I10	0	0	IO1616-1	10	
11	UTC_I11	0	0	IO1616-1	11	
12	UTC_I12	0	0	IO1616-1	12	
13	UTC_I13	0	0	IO1616-1	13	
14	UTC_I14	0	0	IO1616-1	14	
15	UTC_I15	0	0	IO1616-1	15	
16	UTC_I16	0	0	IO1616-1	16	
17	DIM_IN	0	0	DIMMING	1	DIMR

OUTPUTS

ID	Output	Invert	Unit	Bit	Flag
1	ST1A42C	0	IO1616-2	1	
2	ST1A43H	0	IO1616-2	2	
3	ST1B44C	0	IO1616-2	3	
4	ST1B45H	0	IO1616-2	4	
5	ST2F34C	0	IO1616-2	5	
6	ST2F35H	0	IO1616-2	6	
7	DET40_1	0	IO1616-2	7	
8	DET41_1	0	IO1616-2	8	
9	DET42_1	0	IO1616-2	9	
10	DET36_2	0	IO1616-2	10	
11	DET37_2	0	IO1616-2	11	
12	DET38_2	0	IO1616-2	12	
13	DET39_2	0	IO1616-2	13	
14	DET40_2	0	IO1616-2	14	
15	DET41_2	0	IO1616-2	15	
16	MCRB1	1	IO1616-2	16	
17	MCRB2	1	IO1616-3	1	
18	ST1DET31	0	IO1616-3	2	
19	ST2DET31	0	IO1616-3	3	
20	ST1DET32	0	IO1616-3	4	
21	ST2DET32	0	IO1616-3	5	
22	UTC_O1	0	IO1616-1	1	
23	UTC_O2	0	IO1616-1	2	
24	UTC_O3	0	IO1616-1	3	
25	UTC_O4	0	IO1616-1	4	
26	UTC_O5	0	IO1616-1	5	
27	UTC_O6	0	IO1616-1	6	
28	UTC_O7	0	IO1616-1	7	
29	UTC_O8	0	IO1616-1	8	
30	UTC_O9	0	IO1616-1	9	
31	UTC_O10	0	IO1616-1	10	
32	UTC_O11	0	IO1616-1	11	
33	UTC_O12	0	IO1616-1	12	
34	UTC_O13	0	IO1616-1	13	
35	UTC_O14	0	IO1616-1	14	
36	UTC_O15	0	IO1616-1	15	
37	UTC_O16	0	IO1616-1	16	
38	DIM_OUT	0	DIMMING	1	DIMA
39	ASL2	0	IO1616-3	6	
40	BSL7	0	IO1616-3	7	
41	CSL3	0	IO1616-3	8	

ID	Output	Invert	Unit	Bit	Flag
42	DSL10	0	IO1616-3	9	
43	ESL15	0	IO1616-3	10	
44	FSL20	0	IO1616-3	11	
45	DET43_1	0	IO1616-3	12	
46	DET46_2	0	IO1616-3	13	

APPLICATION BUILDING BLOCKS

User Parameters

ID	Name	DEF	MIN	MAX
1	ST1A43H_EXT	1	0	1
2	ST1B45H_EXT	1	0	1
3	ST2F35H_EXT	1	0	1
4	ST1A42C_SW	0	0	1
5	ST1A43H_SW	0	0	1
6	ST1B44C_SW	0	0	1
7	ST1B45H_SW	0	0	1
8	ST2F34C_SW	0	0	1
9	ST2F35H_SW	0	0	1
10	DET40_1_SW	0	0	1
11	DET41_1_SW	0	0	1
12	DET42_1_SW	0	0	1
13	DET36_2_SW	0	0	1
14	DET37_2_SW	0	0	1
15	DET38_2_SW	0	0	1
16	DET39_2_SW	0	0	1
17	DET40_2_SW	0	0	1
18	DET41_2_SW	0	0	1
19	Q7_8SW	0	0	1
20	DET46_2_SW	0	0	1

Memory Elements

ID	Timer	Duration
1	GREENA	0
2	GREENB	0
3	GREENF	0
4	CRBRST	0

Event Pulses

ID	Name	Type	R	InType	On	OFF
1	CrbPulse1	3	0	0	1200	20
2	CrbPulse2	3	0	0	1200	20
3	St1a41cpulse	1	0	1	50	20
4	St1a42hold	1	0	1	70	50
5	Sta42hoff	2	1	0	80	0
6	Sta42hOR	2	1	0	600	0
7	Stb43cPulse	1	0	1	50	20
8	St1b44hold	1	0	1	70	50
9	St1b44off	2	1	0	80	0
10	St1b44OR	2	1	0	600	0
11	St2f34cpulse	1	0	1	50	20
12	St2f35hold	1	0	1	70	50
13	St2f35hoff	2	1	0	80	0
14	St2f35hOR	2	1	0	600	0
15	Axq	2	0	0	0	20
16	Axqpulse	1	0	1	0	20
17	AxqOR	1	0	2	0	1200
18	q1	2	0	0	0	20
19	Q1Pulse	1	0	1	0	20
20	Q1OR	1	0	2	0	1800
21	q3	2	0	0	0	20
22	Q3pulse	1	0	1	0	20
23	Q3OR	1	0	2	0	1800
24	cIn	2	0	0	0	20
25	CINpulse	1	0	1	0	20
26	CINOR	1	0	2	0	1200
27	Dq	2	0	0	0	20
28	DQpulse	1	0	1	0	20
29	DQOR	1	0	2	0	1800
30	Ex	2	0	0	0	20
31	EXpulse	1	0	1	0	20
32	ExOR	1	0	2	0	1200

ID	Name	Type	R	InType	On	OFF
33	Eq	2	0	0	0	20
34	EQpulse	1	0	1	0	20
35	EQOR	1	0	2	0	1200
36	q5	2	0	0	0	20
37	Q5pulse	1	0	1	0	20
38	Q5OR	1	0	2	0	1800
39	q6	2	0	0	0	20
40	Q6pulse	1	0	1	0	20
41	Q6OR	1	0	2	0	1800
42	Nodemand	2	1	0	150	0
43	Crbdrop1	2	1	0	6000	0
44	Crbdrop2	2	1	0	6000	0
45	St1Det31	1	0	1	0	20
46	St2Det31	1	0	1	0	20
47	St1Det32	1	0	1	0	20
48	St2Det32	1	0	1	0	20
49	Det43_1	1	0	1	0	20
50	Det46_2	1	0	1	0	20
51	Det43_1OR	1	0	2	0	1200
52	Det46_2OR	1	0	2	0	1200

VM FUNCTIONS

OTU

rf_2(arg) = cfa;
urG1() = (stgc(0)==1) && (stgr(0,0,0));
urDR1() = dr(A);
urG2() = (stgc(0)==2) && (stgr(0,0,0));
urDR2() = dr(B);
urG3() = (stgc(0)==3) && (stgr(0,0,0));
urDR3() = dr(G);
urG4() = (stgc(1)==4) && (stgr(1,0,0));
urDR4() = dr(C) ||dr(F);
urG5() = (stgc(1)==5) && (stgr(1,0,0));
urDR5() = dr(D) ||dr(E);
urG6() = (stgc(1)==6) && (stgr(1,0,0));
urDR6() = dr(C) ||dr(E) ||dr(I);
urG7() = (stgc(1)==7) && (stgr(1,0,0));
urDR7() = dr(H);

CLF

UTC
r_uf1() = fcg(C); r_uf2() = fcg(E);

PSVP

Hurry call

Phase delays

Phase delays

Streams

roffsync() = okoff(0) && okoff(1);
mac1_swon(t) = yellow_period(0,t);
macon1() = minon(xp)==0;
macoff1() = (macm(xp) <= 1) && (mact(xp) <= tson(7));
mac2_swon(t) = yellow_period(1,t);
macon2() = minon(xp)==0;
macoff2() = (macm(xp) <= 1) && (mact(xp) <= tson(7));

Detectors

Phases

```
pd_ALL(ph)

if ((xsf(XSF_PSET_ERR) != AUTOSET_STATE_DONE) && (xsf(XSF_PSET_ERR) != AUTOSET_STATE_ERROR)) then return (1); endif
end

pe_ALL(ph) = ngp1(ph);
```

Timing sets

Dummy detectors

```
vmdet1() = ddo(AX1) || ddo(AX3) || ddo(AX4);

vmdet2() = ddo(CIN1) || ddo(CIN4) || ddo(CIN6);

vmdet3() = ddo(DQ1) || ddo(DQ2);

vmdet4() = ddo(EX14) || ddo(EX16) || ddo(EX17);

vmdet5() = ddo(EQ1);

vmdet6() = ddo(Q1) || ddo(Q2);

vmdet7() = ddo(Q3) || ddo(Q4);

vmdet8() = ddo(Q5);

vmdet9() = ddo(Q6);
```

Modes

```
rHCH() = rar(xp);

rUTC() = ufav(xp)||ufpv(xp);

rHCL() = hfh();

rMAN() = mpman(xp);

rCLF() = clfp && (clfi == 0);

rVA() = 1;

rFT() = 1;

rSCLF() = clfp && (mpclf(xp) || clfmp);

rSVA() = mpva(xp);

rSFT() = mpft(xp);
```

Integral OTU

```
otu_dstate(d) = get(h_xdet_sts, d) & DET_BEZET_MASK;

otu_dfault(d) = get(h_xdet_sts, d) & DET_FAULT_MASK;

otu_dcnt(d) = get(h_xdet_cnt, d);
```

Conflict extension red

Stage moves - HCH

```
mHCH1_3d() = rar(xp);

mHCH2_3d() = rar(xp);

mHCH4_7d() = rar(xp);

mHCH5_7d() = rar(xp);

mHCH6_7d() = rar(xp);
```

Stage moves - HCL

```
mHCL1_2d() = FALSE;
mHCL1_3d() = FALSE;
mHCL2_3d() = FALSE;
mHCL2_1d() = FALSE;
mHCL3_1d() = FALSE;
mHCL3_2d() = FALSE;
mHCL4_5d() = FALSE;
mHCL4_6d() = FALSE;
mHCL4_7d() = FALSE;
mHCL5_6d() = FALSE;
mHCL5_7d() = FALSE;
mHCL5_4d() = FALSE;
mHCL6_7d() = FALSE;
mHCL6_4d() = FALSE;
mHCL6_5d() = FALSE;
mHCL7_4d() = FALSE;
mHCL7_5d() = FALSE;
mHCL7_6d() = FALSE;
```

Stage moves - VA

```
mVA1_2d() = dSTGd(1, 2);
mVA1_2e() = dSTGe(1, 2);
mVA1_2i() = FALSE;
mVA1_3d() = evp(42) && (mtcf(7)==0);
mVA1_3e() = dSTGe(1, 3);
mVA1_3i() = FALSE;
mVA2_3d() = evp(42) && (mtcf(7)==0);
mVA2_3e() = dSTGe(2, 3);
mVA2_3i() = FALSE;
mVA2_1d() = dr(A) || (evp(42) && mtcf(7));
mVA2_1e() = dSTGe(2, 1);
mVA2_1i() = FALSE;
mVA3_1d() = dr(A) || (evp(42) && mtcf(7));
mVA3_1e() = dSTGe(3, 1);
mVA3_1i() = FALSE;
mVA3_2d() = dSTGd(3, 2);
mVA3_2e() = dSTGe(3, 2);
mVA3_2i() = FALSE;
mVA4_5d() = dSTGd(4, 5);
mVA4_5e() = dSTGe(4, 5);
mVA4_5i() = FALSE;
mVA4_6d() = dSTGd(4, 6);
mVA4_6e() = dSTGe(4, 6);
mVA4_6i() = FALSE;
mVA4_7d() = dr(H) || (evp(42) && (mtcf(7)==0));
mVA4_7e() = dSTGe(4, 7);
mVA4_7i() = FALSE;
mVA5_6d() = dSTGd(5, 6);
```

```
mVA5_6e() = dSTGe(5, 6);
mVA5_6i() = FALSE;
mVA5_7d() = dr(H) || (evp(42) && (mtcf(7)==0));
mVA5_7e() = dSTGe(5, 7);
mVA5_7i() = FALSE;
mVA5_4d() = dr(C) ||dr(F) || (evp(42) && mtcf(7));
mVA5_4e() = dSTGe(5, 4);
mVA5_4i() = FALSE;
mVA6_7d() = dr(H) || (evp(42) && (mtcf(7)==0));
mVA6_7e() = dSTGe(6, 7);
mVA6_7i() = FALSE;
mVA6_4d() = dr(C) ||dr(F) || (evp(42) && mtcf(7));
mVA6_4e() = dSTGe(6, 4);
mVA6_4i() = FALSE;
mVA6_5d() = dSTGd(6, 5);
mVA6_5e() = dSTGe(6, 5);
mVA6_5i() = FALSE;
mVA7_4d() = dr(C) ||dr(F) || (evp(42) && mtcf(7));
mVA7_4e() = dSTGe(7, 4);
mVA7_4i() = FALSE;
mVA7_5d() = dSTGd(7, 5);
mVA7_5e() = dSTGe(7, 5);
mVA7_5i() = FALSE;
mVA7_6d() = dSTGd(7, 6);
mVA7_6e() = dSTGe(7, 6);
mVA7_6i() = FALSE;
```

Stage moves - FT

```
mFT1_2d() = dSTGd(1, 2);
mFT1_2e() = dSTGe(1, 2);
mFT1_2i() = FALSE;
mFT1_3d() = dSTGd(1, 3);
mFT1_3e() = dSTGe(1, 3);
mFT1_3i() = FALSE;
mFT2_3d() = dSTGd(2, 3);
mFT2_3e() = dSTGe(2, 3);
mFT2_3i() = FALSE;
mFT2_1d() = dSTGd(2, 1);
mFT2_1e() = dSTGe(2, 1);
mFT2_1i() = FALSE;
mFT3_1d() = dSTGd(3, 1);
mFT3_1e() = dSTGe(3, 1);
mFT3_1i() = FALSE;
mFT3_2d() = dSTGd(3, 2);
mFT3_2e() = dSTGe(3, 2);
mFT3_2i() = FALSE;
mFT4_5d() = dSTGd(4, 5);
mFT4_5e() = dSTGe(4, 5);
mFT4_5i() = FALSE;
```

```
mFT4_6d() = dSTGd(4, 6);
mFT4_6e() = dSTGe(4, 6);
mFT4_6i() = FALSE;
mFT4_7d() = dSTGd(4, 7);
mFT4_7e() = dSTGe(4, 7);
mFT4_7i() = FALSE;
mFT5_6d() = dSTGd(5, 6);
mFT5_6e() = dSTGe(5, 6);
mFT5_6i() = FALSE;
mFT5_7d() = dSTGd(5, 7);
mFT5_7e() = dSTGe(5, 7);
mFT5_7i() = FALSE;
mFT5_4d() = dSTGd(5, 4);
mFT5_4e() = dSTGe(5, 4);
mFT5_4i() = FALSE;
mFT6_7d() = dSTGd(6, 7);
mFT6_7e() = dSTGe(6, 7);
mFT6_7i() = FALSE;
mFT6_4d() = dSTGd(6, 4);
mFT6_4e() = dSTGe(6, 4);
mFT6_4i() = FALSE;
mFT6_5d() = dSTGd(6, 5);
mFT6_5e() = dSTGe(6, 5);
mFT6_5i() = FALSE;
mFT7_4d() = dSTGd(7, 4);
mFT7_4e() = dSTGe(7, 4);
mFT7_4i() = FALSE;
mFT7_5d() = dSTGd(7, 5);
mFT7_5e() = dSTGe(7, 5);
mFT7_5i() = FALSE;
mFT7_6d() = dSTGd(7, 6);
mFT7_6e() = dSTGe(7, 6);
mFT7_6i() = FALSE;
```

Stage moves - CLF

```
mCLF1_2d() = dCLFd(1, 2);
mCLF1_2i() = dCLFi(1, 2);
mCLF1_3d() = dCLFd(1, 3);
mCLF1_3i() = dCLFi(1, 3);
mCLF2_3d() = dCLFd(2, 3);
mCLF2_3i() = dCLFi(2, 3);
mCLF2_1d() = dCLFd(2, 1);
mCLF2_1i() = dCLFi(2, 1);
mCLF3_1d() = dCLFd(3, 1);
mCLF3_1i() = dCLFi(3, 1);
mCLF3_2d() = dCLFd(3, 2);
mCLF3_2i() = dCLFi(3, 2);
mCLF4_5d() = dCLFd(4, 5);
mCLF4_5i() = dCLFi(4, 5);
mCLF4_6d() = dCLFd(4, 6);
```

mCLF4_6i() = dCLFi(4, 6);

mCLF4_7d() = dCLFd(4, 7);

mCLF4_7i() = dCLFi(4, 7);

mCLF5_6d() = dCLFd(5, 6);

mCLF5_6i() = dCLFi(5, 6);

mCLF5_7d() = dCLFd(5, 7);

mCLF5_7i() = dCLFi(5, 7);

mCLF5_4d() = dCLFd(5, 4);

mCLF5_4i() = dCLFi(5, 4);

mCLF6_7d() = dCLFd(6, 7);

mCLF6_7i() = dCLFi(6, 7);

mCLF6_4d() = dCLFd(6, 4);

mCLF6_4i() = dCLFi(6, 4);

mCLF6_5d() = dCLFd(6, 5);

mCLF6_5i() = dCLFi(6, 5);

mCLF7_4d() = dCLFd(7, 4);

mCLF7_4i() = dCLFi(7, 4);

mCLF7_5d() = dCLFd(7, 5);

mCLF7_5i() = dCLFi(7, 5);

mCLF7_6d() = dCLFd(7, 6);

mCLF7_6i() = dCLFi(7, 6);

Stage moves - UTC

mUTC1_2d() = dUTCd(1, 2);

mUTC1_2i() = dUTCi(1, 2);

mUTC1_3d() = dUTCd(1, 3);

mUTC1_3i() = dUTCi(1, 3);

mUTC2_3d() = dUTCd(2, 3);

mUTC2_3i() = dUTCi(2, 3);

mUTC2_1d() = dUTCd(2, 1);

mUTC2_1i() = dUTCi(2, 1);

mUTC3_1d() = dUTCd(3, 1);

mUTC3_1i() = dUTCi(3, 1);

mUTC3_2d() = dUTCd(3, 2);

mUTC3_2i() = dUTCi(3, 2);

mUTC4_5d() = dUTCd(4, 5);

mUTC4_5i() = dUTCi(4, 5);

mUTC4_6d() = dUTCd(4, 6);

mUTC4_6i() = dUTCi(4, 6);

mUTC4_7d() = dUTCd(4, 7);

mUTC4_7i() = dUTCi(4, 7);

mUTC5_6d() = dUTCd(5, 6);

mUTC5_6i() = dUTCi(5, 6);

mUTC5_7d() = dUTCd(5, 7);

mUTC5_7i() = dUTCi(5, 7);

mUTC5_4d() = dUTCd(5, 4);

mUTC5_4i() = dUTCi(5, 4);

mUTC6_7d() = dUTCd(6, 7);

mUTC6_7i() = dUTCi(6, 7);

mUTC6_4d() = dUTCd(6, 4);

mUTC6_4i() = dUTCi(6, 4);

mUTC6_5d() = dUTCd(6, 5);

mUTC6_5i() = dUTCi(6, 5);

mUTC7_4d() = dUTCd(7, 4);

mUTC7_4i() = dUTCi(7, 4);

mUTC7_5d() = dUTCd(7, 5);

mUTC7_5i() = dUTCi(7, 5);

mUTC7_6d() = dUTCd(7, 6);

mUTC7_6i() = dUTCi(7, 6);

Stage moves - PSVP

Stage moves - MAN

mMAN1_2d() = mstg(xp)==2;

mMAN1_3d() = mstg(xp)==3;

mMAN2_3d() = mstg(xp)==3;

mMAN2_1d() = mstg(xp)==1;

mMAN3_1d() = mstg(xp)==1;

mMAN3_2d() = mstg(xp)==2;

mMAN4_5d() = mstg(xp)==5;

mMAN4_6d() = mstg(xp)==6;

mMAN4_7d() = mstg(xp)==7;

mMAN5_6d() = mstg(xp)==6;

mMAN5_7d() = mstg(xp)==7;

mMAN5_4d() = mstg(xp)==4;

mMAN6_7d() = mstg(xp)==7;

mMAN6_4d() = mstg(xp)==4;

mMAN6_5d() = mstg(xp)==5;

mMAN7_4d() = mstg(xp)==4;

mMAN7_5d() = mstg(xp)==5;

mMAN7_6d() = mstg(xp)==6;

Stage moves - General

dSTGd(f,t) = drs(t);

dSTGe(f,t) = exm(t);

dUTCd(f,t) = uF(t) || (uFD(t) && (uD(t) || drs(t)));

dUTCi(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));

dCLFd(f,t) = cIM(t) || (cDD(t) && drs(t)) || (cPS(t) && drs(t));

dCLFi(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));

dPSVPd(f,t) = drs(t);

dPSVPe(f,t) = exm(t);

dSTGd1() = dr(A);

dSTGe1() = er(A);

dPSVPd1() = pdp(A);

dPSVPe1() = pep(A);

dUTCd1(t) = uF(t) || (uFD(t) && (uD(t) || dr(A)));

dUTCi1(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));

```
dCLFd1(t) = cIM(t) || (cDD(t) && (dr(A))) || (cPS(t) && (dr(A)));
dCLFi1(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd2() = dr(B);
dSTGe2() = er(B);
dPSVPd2() = pdp(B);
dPSVPe2() = pep(B);
dUTCd2(t) = uF(t) || (uFD(t) && (uD(t) || dr(B)));
dUTCi2(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd2(t) = cIM(t) || (cDD(t) && (dr(B))) || (cPS(t) && (dr(B)));
dCLFi2(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd3() = dr(G);
dSTGe3() = er(G);
dPSVPd3() = pdp(G);
dPSVPe3() = pep(G);
dUTCd3(t) = uF(t) || (uFD(t) && (uD(t) || dr(G)));
dUTCi3(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd3(t) = cIM(t) || (cDD(t) && (dr(G))) || (cPS(t) && (dr(G)));
dCLFi3(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd4() = dr(C) ||dr(F);
dSTGe4() = er(C) ||er(F);
dPSVPd4() = pdp(C) ||pdp(F);
dPSVPe4() = pep(C) ||pep(F);
dUTCd4(t) = uF(t) || (uFD(t) && (uD(t) || dr(C) ||dr(F)));
dUTCi4(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd4(t) = cIM(t) || (cDD(t) && (dr(C) ||dr(F))) || (cPS(t) && (dr(C) ||dr(F)));
dCLFi4(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd5() = dr(D) ||dr(E);
dSTGe5() = er(D) ||er(E);
dPSVPd5() = pdp(D) ||pdp(E);
dPSVPe5() = pep(D) ||pep(E);
dUTCd5(t) = uF(t) || (uFD(t) && (uD(t) || dr(D) ||dr(E)));
dUTCi5(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd5(t) = cIM(t) || (cDD(t) && (dr(D) ||dr(E))) || (cPS(t) && (dr(D) ||dr(E)));
dCLFi5(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd6() = dr(C) ||dr(E) ||dr(I);
dSTGe6() = er(C) ||er(E) ||er(I);
dPSVPd6() = pdp(C) ||pdp(E) ||pdp(I);
dPSVPe6() = pep(C) ||pep(E) ||pep(I);
dUTCd6(t) = uF(t) || (uFD(t) && (uD(t) || dr(C) ||dr(E) ||dr(I)));
dUTCi6(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd6(t) = cIM(t) || (cDD(t) && (dr(C) ||dr(E) ||dr(I))) || (cPS(t) && (dr(C) ||dr(E) ||dr(I)));
dCLFi6(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd7() = dr(H);
dSTGe7() = er(H);
dPSVPd7() = pdp(H);
dPSVPe7() = pep(H);
dUTCd7(t) = uF(t) || (uFD(t) && (uD(t) || dr(H)));
dUTCi7(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0) || ex(t)));
dCLFd7(t) = cIM(t) || (cDD(t) && (dr(H))) || (cPS(t) && (dr(H)));
dCLFi7(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
```

User functions

```
post_100ms() = Mem || Outputs1 || Outputs2 || Outputs3 || Leds;

Mem()
if evp(4) then
wmem(GREENA,1);
else
if fca(A) then
wmem(GREENA,0);
endif
endif

if evp(8) then
wmem(GREENB,1);
else
if fca(B) then
wmem(GREENB,0);
endif
endif

if evp(12) then
wmem(GREENF,1);
else
if fca(F) then
wmem(GREENF,0);
endif
endif

if b(0) then
wmem(CRBRST,1);
else
if evp(43) then
wmem(CRBRST,0);
endif
endif

end

Outputs1()
cout(ST1A42C,evp(3) && UP(3));

if evp(4) && UP(4) then
cout(ST1A43H,1);
else
if mem(GREENA) && er(A) && (evp(6)==0) && UP(4) then
cout(ST1A43H,1);
else
if evp(5) && UP(4) then
cout(ST1A43H,0);
else
if evp(6) && UP(4) then
cout(ST1A43H,0);
endif
endif
endif
endif

cout(ST1B44C,evp(7) && UP(5));

if evp(8) && UP(6) then
cout(ST1B45H,1);
else
if mem(GREENB) && er(B) && (evp(10)==0) && UP(6) then
cout(ST1B45H,1);
else
if evp(9) && UP(6) then
cout(ST1B45H,0);
else
if evp(10) && UP(6) then
cout(ST1B45H,0);
endif
endif
endif
endif

cout(ST2F34C,evp(11) && UP(7));

if evp(12) && UP(8) then
cout(ST2F35H,1);
else
if mem(GREENF) && er(F) && (evp(14)==0) && UP(8) then
cout(ST2F35H,1);
else
if evp(13) && UP(8) then
cout(ST2F35H,0);
else
if evp(14) && UP(8) then
cout(ST2F35H,0);
endif
endif
endif
endif


end
```

User functions

```
Outputs2()
if evp(16) && (evp(17)==0) && UP(9) then
cout(DET40_1,1);
else
cout(DET40_1,0);
endif

if (evp(19) && (evp(20)==0) && UP(10)) || (evp(49) && (evp(51)==0) && UP(18)) then
cout(DET41_1,1);
else
cout(DET41_1,0);
endif

if evp(22) && (evp(23)==0) && UP(11) then
cout(DET42_1,1);
else
cout(DET42_1,0);
endif

if evp(25) && (evp(26)==0) && UP(12) then
cout(DET36_2,1);
else
cout(DET36_2,0);
endif

if evp(28) && (evp(29)==0) && UP(13) then
cout(DET37_2,1);
else
cout(DET37_2,0);
endif

if evp(31) && (evp(32)==0) && UP(14) then
cout(DET38_2,1);
else
cout(DET38_2,0);
endif

if evp(34) && (evp(35)==0) && UP(15) then
cout(DET39_2,1);
else
cout(DET39_2,0);
endif

if evp(37) && (evp(38)==0) && UP(16) then
cout(DET40_2,1);
else
cout(DET40_2,0);
endif

if evp(40) && (evp(41)==0) && UP(17) then
cout(DET41_2,1);
else
cout(DET41_2,0);
endif
end

Outputs3()
if mpauto(xp) && (evp(1)==0) && (evp(43)==0) && (evp(44)==0) then
cout(MCRB1,1);
else
cout(MCRB1,0);
endif

if mpauto(xp) && (evp(2)==0) && (evp(43)==0) && (evp(44)==0) then
cout(MCRB2,1);
else
cout(MCRB2,0);
endif

cout(ST1DET31,evp(45));
cout(ST2DET31,evp(46));
cout(ST1DET32,evp(47));
cout(ST2DET32,evp(48));
cout(ASL2,ddo(ASL2a) || ddo(ASL2b) || ddo(ASL2c));
cout(BSL7,ddo(BSL7a) || ddo(BSL7b) || ddo(BSL7c) || ddo(BSL7d));
cout(CSL3,ddo(CSL3a) || ddo(CSL3b) || ddo(CSL3c));
cout(DSL10,ddo(DSL10a) || ddo(DSL10b) || ddo(DSL10c));
cout(ESL15,ddo(ESL15a) || ddo(ESL15b) || ddo(ESL15c));
cout(FSL20,ddo(FSL20a) || ddo(FSL20b) || ddo(FSL20c) || ddo(FSL20d));
cout(DET43_1,evp(49) && (evp(51)==0) && UP(18));
cout(DET46_2,evp(50) && (evp(52)==0) && UP(19));
end

Leds()
cmled(0,ddo(Q1));
cmled(1,ddo(Q2));
cmled(2,ddo(Q3));

if evp(43) || evp(44) then
cmled(3,2);
else
cmled(3,0);
endif
end
```

SYSTEM PARAMETERS

UK Parameters

Name	Description	Min	Max	Def	-
MAN_TIMEOUT	Manual control timeout	60	600	300	300
MAN_DEMAND_ERROR	Duration of the manual demand error indication	0	60	5	5
MAN_ENABLE	Manual control enabled.	0	1	1	1
DFM_FUNC	Bit mask specifying behavior of DFM indicator	0	999	1	1
CLF_TIMER_SYNC	Duration of the CLF group Timer Synchronisation Signal	0	0	0	0
UTC_TS	Time in HH:MM used for COTU_TS	0	2359	0	0
UTC_FORCE_TIMEOUT	The force bit watchdog timeout	120	300	200	200
UTC_FORCE_ACCEPT	The force accept timeout in system ticks.	1	10	4	4
UTC_LO_DELAY	Delay in seconds before COTU_LO changes is accepted.	0	99	10	10
UTC_RT_HOUR	Hours used for RT reply bit (-1 = any hour).	-1	23	0	0
UTC_RT_MIN	Minutes used for RT reply bit (-1 = any minute).	-1	59	0	0
UTC_RT_SEC	Seconds used for RT reply bit	-1	59	0	0
UTC_RT_DURATION	Duration of the RT reply bit in seconds	1	10	3	3
UTC_CG_DURATION	Duration of the CG reply bit in seconds	1	10	3	3
UTC_TSR_DURATION	Duration of the TSR reply bit in seconds	1	10	3	3
UTC_G1G2_FUNC	Bit mask specifying behavior of G1/G2 reply bits	0	255	1	1
UTC_RR_FUNC	Bit mask specifying behavior of RR reply bit	0	255	14	14
UTC_PV_ACCEPT	The PV accept time in system ticks	0	255	0	0
UTC_PV_HOLD	The PV hold time in system ticks	0	255	0	0
UKSTG_DIM_ALARM	The maximum time [in hours] for dimmed operation (-1 = solar cell disabled, 0 = enabled without timeout processing)	-1	100	24	24
UKSTG_DIM_FILTER	The call/cancel delay [in sec] for the DIM relais	0	255	0	0
UTC_CRB_PULSE_ON_TIME	CRB On Timer	0	1800	600	600
UTC_CRB_PULSE_OFF_TIME	CRB Off Timer	0	10	2	2

System Parameters

Name	Description	Min	Max	-
SYS_TSRC	System time source type; 0 = crystal, 1 = mains frequency (default)	1	1	1
MMI8408	XMMI: 8 x 40 MMI	0	1	1
XIN_L	XIN_L: Number of logging lines	1	999	10
XOUT_L	XOUT_L: Number of logging lines	1	999	10
XDET_L	XDET_L: Number of logging lines	1	999	100
XDET_F	XDET_F: Status in case of fault	0	2	0
XSG_L	XSG_L: Number of logging lines	0	999	10
XHTTP	XHTTP: Presence of web server	0	1	1
XHTTP_PORT	XHTTP_PORT: Webserver port	0	65535	80
XHTTP_SES	XHTTP_SES:	0	65535	200
XDLS	XDLS: Daylight saving	0	1	1
XLM_MAL	XLM_MAL: Go to major alarm if power reference(s) are not set	0	1	0
XLM_RLM	XLM_RLM: RLM callback interval in 0.1 [s]	0	100	10
XLM_T	XLM_T: Tracking off / on	0	20	5
XLM_TF	XLM_TF: Tracking filter	1	20	8
XLM_NV	XLM_NV: Nominal (bright) voltage	0	240	230
XLM_MON	XLM_MON: Monitoring type	0	10	3
XLM_AC	XLM_AC: Automatic calibration	0	1	1
XLM_DIM	XLM_DIM: Bright Din Calibration off / on	0	1	1
CLF_SYNC	CLF Synchronisation option.	0	3	0
CLF_SYNC_WDAY	CLF Weekly sync is done on..	1	7	1
CLF_TIMER_SYNC	Duration of the CLF group Timer Synchronisation Signal	0	2400	200
CLF_NON_BASE_TIME	Select base time or non base time (0 or 1)	0	1	0
XIOTU_RTS	RTS activated after # received characters (use 1, 2 or 3)	1	3	1
XIOTU_SCOOT	Default bit number used for scoot counted detectors (0 to 7)	0	7	0
XIOTU_CTS	CTS timeout per 10ms	4	10	6
UKMP_TYPE	UK Manual panel type (0=std, 1=ped, 2=multiple stages)	0	2	2
ENGTERM_SIM_PORT	Engterm simulation socket	0	99999	50001
ENGTERM_BAUD	Engterm baudrate	0	99999	9600
HCH_ALLRED	Use HCH for all red stage moves	0	1	1
HCH_SWOFF	Use HCH for switch off stage moves	0	1	0
PT_SYNC	Synchronize move to part time mode	0	1	1
CLF_MANUAL_STEP	Enable the Manual Step	0	1	0
CLF_DEFAULT_PLAN		-1	999	0
CLF_MANUAL_MEMOS	Memo for the manual step	0	1	0

Name	Description	Min	Max	-
COMPRESS_HARDWARE	Compress Hardware	0	1	0

MEMO FIELDS

HISTORY	
Description	Text in the History text block between: --CREDAT-- and --UPDATE--
Contents	* This is memofield HISTORY

B_HISTORY	
Description	Text in the History text block between: --CREDAT-- and --UPDATE-- (AMSEC1.CNF)
Contents	; This is memofield HISTORY_B

ABC_INC	
Description	Code at the end of the file before the end of file remark (AMSEC1.CNF)
Contents	; This is memofield AMSEC_INC

XP1_INC	
Description	Code at the begin of the file, juts below History, under the heading 'XP1_INC'.
Contents	**/* This is memofield XP1_INC** */

XP2_INC	
Description	Code under the heading 'XP2_INC', just before the 'XIN INPUTS' definitions.
Contents	**/* This is memofield XP2_INC** */

XP3_INC	
Description	Code under the heading 'XP3_INC', at the end of the file.

Contents	**/* This is memofield XP3_INC** */
	P("MPDISO.R1")
	{
	P(0);D(1);
	P(1);D(1);
	P(2);D(1);
	P(3);D(1);
	P(4);D(1);
	P(5);D(1);
	P(6);D(1);
	P(7);D(1);
	}

SADAT_INC	
Description	Code at end of the file. (SADAT.CNF)
Contents	**/* This is memofield SADAT_INC** */

DESCRIPTION	
Description	Detailed project description
Contents	* This is memofield DESCRIPTION

VMFUNC_INC1	
Description	VMFUNC process conditions
Contents	**/* This is memofield VMFUNC_INC1** */

VMFUNC_INC2	
Description	VMFUNC process conditions
Contents	**/* This is memofield VMFUNC_INC2** */

HARDWARE CONFIGURATION

Number of Devices	*	Optional Devices	*
LCM	2	Manual panel type	Multi stage
MTS4E	11	Dimming Operating	2
IO1616	3	Manual Panel Flashing	1
Dummy Detectors	9	Solar Cell Monitor	Disabled

Configuration

LCM	MTS4E	IO1616-IN	IO1616-OUT
DEVICE: LCM	DEVICE: MTS4E	DEVICE: IO1616-IN	DEVICE: IO1616-OUT
--- 01 ---	--- 01 ---	--- 01 ---	--- 01 ---
01: A (R)	01: CIN1	01: UTC_I1	01: UTC_O1
02: A (A)	02: CSL3a	02: UTC_I2	02: UTC_O2
03: A (G)	03: CSL3b	03: UTC_I3	03: UTC_O3
04: B (R)	04: CSL3c	04: UTC_I4	04: UTC_O4
05: B (A)	--- 02 ---	05: UTC_I5	05: UTC_O5
06: B (G)	01: CIN4	06: UTC_I6	06: UTC_O6
07: C (R)	02: CIN6	07: UTC_I7	07: UTC_O7
08: C (A)	03: DIN8	08: UTC_I8	08: UTC_O8
09: C (G)	04: DX9	09: UTC_I9	09: UTC_O9
10: D (R)	--- 03 ---	10: UTC_I10	10: UTC_O10
11: D (A)	01: DSL10a	11: UTC_I11	11: UTC_O11
12: D (G)	02: DSL10b	12: UTC_I12	12: UTC_O12
--- 02 ---	03: DSL10c	13: UTC_I13	13: UTC_O13
01: E (R)	04: DIN11	14: UTC_I14	14: UTC_O14
02: E (A)	--- 04 ---	15: UTC_I15	15: UTC_O15
03: E (G)	01: DX12	16: UTC_I16	16: UTC_O16
04: F (R)	02: DX13	--- 02 ---	--- 02 ---
05: F (A)	03: EX14	01: AX1	01: ST1A42C
06: F (G)	04: ESL15a	02: ASL2a	02: ST1A43H
07: -	--- 05 ---	03: ASL2b	03: ST1B44C
08: -	01: ESL15b	04: ASL2c	04: ST1B45H
09: -	02: ESL15c	05: AX3	05: ST2F34C
10: -	03: EX16	06: AX4	06: ST2F35H
11: -	04: EX17	07: BIN5	07: DET40_1
12: -	--- 06 ---	08: BX6	08: DET41_1
--- 03 ---	01: FIN18	09: BSL7a	09: DET42_1
01: -	02: FX19	10: BSL7b	10: DET36_2
02: -	03: FSL20a	11: BSL7c	11: DET37_2
03: -	04: FSL20b	12: BSL7d	12: DET38_2
04: -	--- 07 ---	13: BIN8	13: DET39_2
05: -	01: FSL20c	14: BX9	14: DET40_2
06: -	02: FSL20d	15: BIN10	15: DET41_2
07: -	03: FIN21	16: BX11	16: MCRB1
08: -	04: FX22	--- 03 ---	--- 03 ---
09: -	--- 08 ---	01: BIN12	01: MCRB2
10: -	01: FIN23	02: BX13	02: ST1DET31
11: -	02: FX24	03: Q1	03: ST2DET31
12: -	03: FIN25	04: Q2	04: ST1DET32
--- 04 ---	04: FX26	05: Q3	05: ST2DET32
01: -	--- 09 ---	06: Q4	06: ASL2
02: -	01: Q5	07: -	07: BSL7
03: -	02: Q6	08: -	08: CSL3
04: -	03: DQ1	09: -	09: DSL10
05: -	04: DQ2	10: -	10: ESL15
06: -	--- 10 ---	11: -	11: FSL20
07: -	01: EQ1	12: -	12: DET43_1
08: -	02: Q7	13: -	13: DET46_2
09: -	03: Q8	14: -	14: -
10: -	04: -	15: -	15: -
11: -	--- 11 ---	16: -	16: -
12: -	01: CX2	--- 04 ---	--- 04 ---
--- 05 ---	02: CX5	01: -	01: -
01: -	03: CX7	02: -	02: -
02: -	04: -	03: -	03: -
03: -	--- 12 ---	04: -	04: -
04: -	01: -	05: -	05: -
05: -	02: -	06: -	06: -
06: -	03: -	07: -	07: -
07: -	04: -	08: -	08: -
08: -	--- 13 ---	09: -	09: -
09: -	01: -	10: -	10: -
10: -	02: -	11: -	11: -
11: -	03: -	12: -	12: -
12: -	04: -	13: -	13: -
--- 06 ---	--- 14 ---	14: -	14: -
01: -	01: -	15: -	15: -
02: -	02: -	16: -	16: -
03: -	03: -	--- 05 ---	--- 05 ---
04: -	04: -	01: -	01: -
05: -	--- 15 ---	02: -	02: -
06: -	01: -	03: -	03: -
07: -	02: -	04: -	04: -
08: -	03: -	05: -	05: -
09: -	04: -	06: -	06: -
10: -	--- 16 ---	07: -	07: -
11: -	01: -	08: -	08: -
12: -	02: -	09: -	09: -
--- 07 ---	03: -	10: -	10: -
01: -	04: -	11: -	11: -
02: -	--- 17 ---	12: -	12: -
03: -	01: -	13: -	13: -
04: -	02: -	14: -	14: -
05: -	03: -	15: -	15: -
06: -	04: -	16: -	16: -

LCM	MTS4E	IO1616-IN	IO1616-OUT
07: -	--- 18 ---	--- 06 ---	--- 06 ---
08: -	01: -	01: -	01: -
09: -	02: -	02: -	02: -
10: -	03: -	03: -	03: -
11: -	04: -	04: -	04: -
12: -	--- 19 ---	05: -	05: -
--- 08 ---	01: -	06: -	06: -
01: -	02: -	07: -	07: -
02: -	03: -	08: -	08: -
03: -	04: -	09: -	09: -
04: -	--- 20 ---	10: -	10: -
05: -	01: -	11: -	11: -
06: -	02: -	12: -	12: -
07: -	03: -	13: -	13: -
08: -	04: -	14: -	14: -
09: -	--- 21 ---	15: -	15: -
10: -	01: -	16: -	16: -
11: -	02: -	--- 07 ---	--- 07 ---
12: -	03: -	01: -	01: -
--- 09 ---	04: -	02: -	02: -
01: -	--- 22 ---	03: -	03: -
02: -	01: -	04: -	04: -
03: -	02: -	05: -	05: -
04: -	03: -	06: -	06: -
05: -	04: -	07: -	07: -
06: -	--- 23 ---	08: -	08: -
07: -	01: -	09: -	09: -
08: -	02: -	10: -	10: -
09: -	03: -	11: -	11: -
10: -	04: -	12: -	12: -
11: -	--- 24 ---	13: -	13: -
12: -	01: -	14: -	14: -
	02: -	15: -	15: -
	03: -	16: -	16: -
	04: -	--- 08 ---	--- 08 ---
	--- 25 ---	01: -	01: -
	01: -	02: -	02: -
	02: -	03: -	03: -
	03: -	04: -	04: -
	04: -	05: -	05: -
	--- 26 ---	06: -	06: -
	01: -	07: -	07: -
	02: -	08: -	08: -
	03: -	09: -	09: -
	04: -	10: -	10: -
	--- 27 ---	11: -	11: -
	01: -	12: -	12: -
	02: -	13: -	13: -
	03: -	14: -	14: -
	04: -	15: -	15: -
	--- 28 ---	16: -	16: -
	01: -		
	02: -		
	03: -		
	04: -		
	--- 29 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 30 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 31 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 32 ---		
	01: -		
	02: -		
	03: -		
	04: -		

IOT State

LCM	MTS4E	IO1616-IN	IO1616-OUT
LCM	MTS4E	IO1616-IN	IO1616-OUT
Unit Addr *	Unit Addr *	Unit Addr *	Unit Addr *
==== ==== ==========	==== ==== ==========	==== ==== ==========	==== ==== ==========
01 01 A (R)	01 01 CIN1	01 01 UTC_I1	01 01 UTC_O1
01 02 A (A)	01 02 CSL3a	01 02 UTC_I2	01 02 UTC_O2
01 03 A (G)	01 03 CSL3b	01 03 UTC_I3	01 03 UTC_O3
01 04 B (R)	01 04 CSL3c	01 04 UTC_I4	01 04 UTC_O4
01 05 B (A)		01 05 UTC_I5	01 05 UTC_O5
01 06 B (G)	02 01 CIN4	01 06 UTC_I6	01 06 UTC_O6
01 07 C (R)	02 02 CIN6	01 07 UTC_I7	01 07 UTC_O7
01 08 C (A)	02 03 DIN8	01 08 UTC_I8	01 08 UTC_O8
01 09 C (G)	02 04 DX9	01 09 UTC_I9	01 09 UTC_O9
01 10 D (R)		01 10 UTC_I10	01 10 UTC_O10
01 11 D (A)	03 01 DSL10a	01 11 UTC_I11	01 11 UTC_O11
01 12 D (G)	03 02 DSL10b	01 12 UTC_I12	01 12 UTC_O12
	03 03 DSL10c	01 13 UTC_I13	01 13 UTC_O13
02 01 E (R)	03 04 DIN11	01 14 UTC_I14	01 14 UTC_O14
02 02 E (A)		01 15 UTC_I15	01 15 UTC_O15

LCM	MTS4E	IO1616-IN	IO1616-OUT
02 03 E (G)	04 01 DX12	01 16 UTC_I16	01 16 UTC_O16
02 04 F (R)	04 02 DX13		
02 05 F (A)	04 03 EX14	02 01 AX1	02 01 ST1A42C
02 06 F (G)	04 04 ESL15a	02 02 ASL2a	02 02 ST1A43H
		02 03 ASL2b	02 03 ST1B44C
	05 01 ESL15b	02 04 ASL2c	02 04 ST1B45H
	05 02 ESL15c	02 05 AX3	02 05 ST2F34C
	05 03 EX16	02 06 AX4	02 06 ST2F35H
	05 04 EX17	02 07 BIN5	02 07 DET40_1
		02 08 BX6	02 08 DET41_1
	06 01 FIN18	02 09 BSL7a	02 09 DET42_1
	06 02 FX19	02 10 BSL7b	02 10 DET36_2
	06 03 FSL20a	02 11 BSL7c	02 11 DET37_2
	06 04 FSL20b	02 12 BSL7d	02 12 DET38_2
		02 13 BIN8	02 13 DET39_2
	07 01 FSL20c	02 14 BX9	02 14 DET40_2
	07 02 FSL20d	02 15 BIN10	02 15 DET41_2
	07 03 FIN21	02 16 BX11	02 16 MCRB1
	07 04 FX22		
		03 01 BIN12	03 01 MCRB2
	08 01 FIN23	03 02 BX13	03 02 ST1DET31
	08 02 FX24	03 03 Q1	03 03 ST2DET31
	08 03 FIN25	03 04 Q2	03 04 ST1DET32
	08 04 FX26	03 05 Q3	03 05 ST2DET32
		03 06 Q4	03 06 ASL2
	09 01 Q5		03 07 BSL7
	09 02 Q6		03 08 CSL3
	09 03 DQ1		03 09 DSL10
	09 04 DQ2		03 10 ESL15
			03 11 FSL20
	10 01 EQ1		03 12 DET43_1
	10 02 Q7		03 13 DET46_2
	10 03 Q8		
	11 01 CX2		
	11 02 CX5		
	11 03 CX7		

LAMP MONITORING

Phase Lamp Types

ID	Phase	Description	Type	Red	Amber	Green	Wait	MonR A	Action A	MonR B	Action B	MonA	MonG
1	A	North Circulatory	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
2	B	A50 Inbound	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
3	C	A46 South Circulatory	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
4	D	A46 Westbound Slip	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
5	E	A50 South Circulatory	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
6	F	A50 Inbound	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Maintenance	None	None	None	Maintenance	Maintenance
7	G	Dummy Stream1 All Red Stage3	-	-	-	-	-	None	None	None	None	None	None
8	H	Dummy Stream 2 All Red Stage 7	-	-	-	-	-	None	None	None	None	None	None
9	I	Dummy Confirm For Stage 6	-	-	-	-	-	None	None	None	None	None	None

Report executed at 3/26/2014 10:27 AM

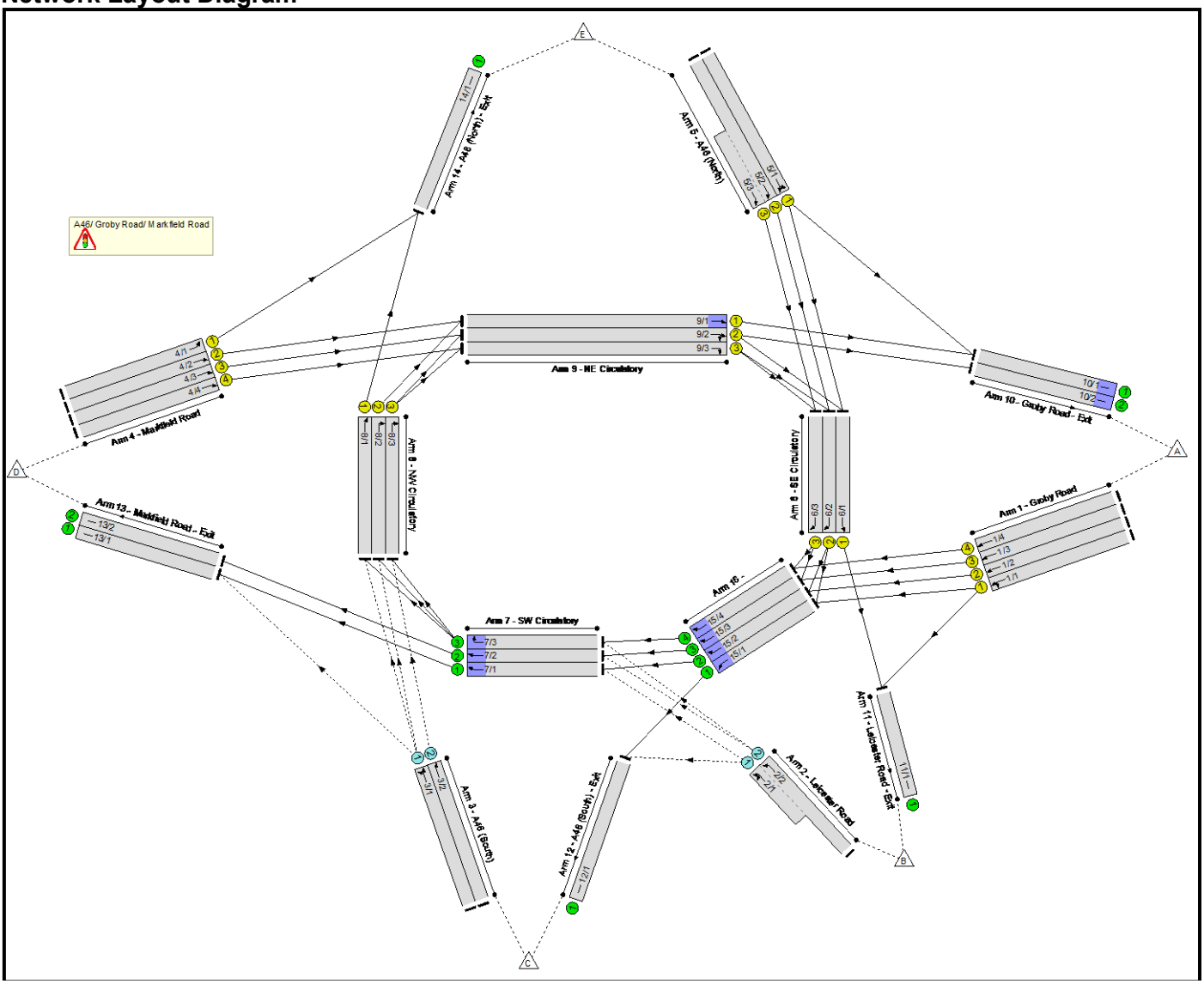
Appendix G Brantings Roundabout LinSig Modelling Outputs

Full Input Data And Results

User and Project Details

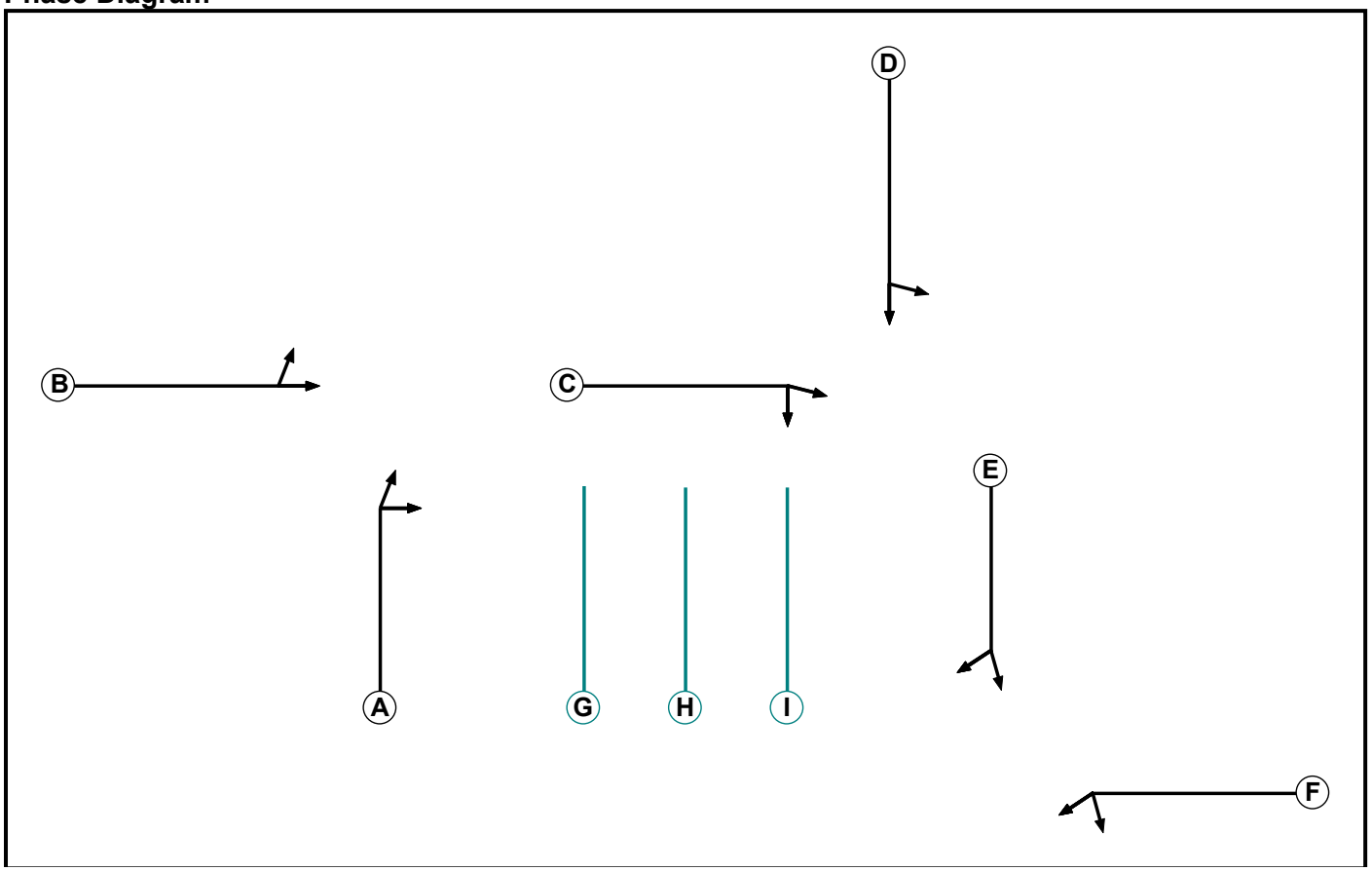
Project:	**Ratby**
Title:	**A46/ Groby Road/ Markfield Road**
Location:	
Client:	Lagan Homes
Site Ref(s):	6
Additional detail:	Model updated following NH feedback
File name:	Junction 6 - Model.lsg3x
Author:	
Company:	Pell Frischmann
Address:	Suite 4.2-1, 4th Floor, The Poynt, Wollaton Street, Nottingham, NG1 5FW

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Dummy	1		4	4
H	Dummy	2		4	4
I	Dummy	2		1	1

Full Input Data And Results

Phase Intergreens Matrix

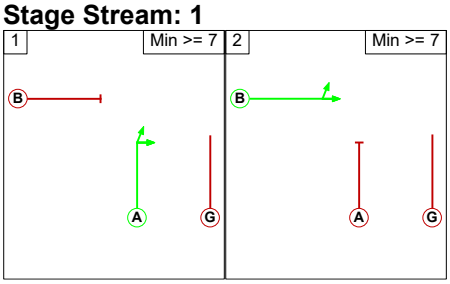
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I
A		6	-	-	-	-	3	-	-
B	6		-	-	-	-	3	-	-
C	-	-		6	-	-	-	3	-
D	-	-	6		-	-	-	3	6
E	-	-	-	-		7	-	3	-
F	-	-	-	-	7		-	3	-
G	2	2	-	-	-	-		-	-
H	-	-	2	2	2	2	-		-
I	-	-	-	6	-	-	-	-	

Phases in Stage

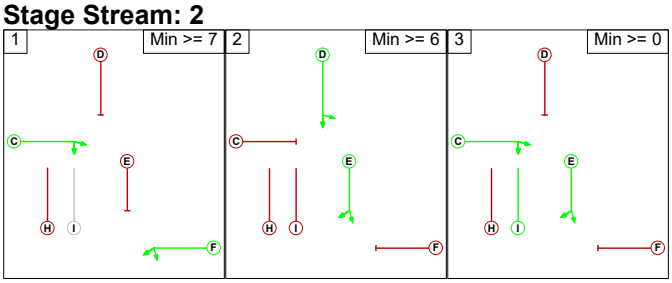
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C F
2	2	D E
2	3	C E I

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Prohibited Stage Change

Stage Stream: 1

	To Stage		
		1	2
From Stage	1		6
	2	6	

Stage Stream: 2

	To Stage			
		1	2	3
From Stage	1		7	7
	2	7		6
	3	7	6	

Full Input Data And Results

Give-Way Lane Input Data

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
2/1 (Leicester Road)	7/1 (Left)	1000	0	15/1	0.33	All	-	-	-	-	-
				15/2	0.33	All					
				15/3	0.33	All					
				15/4	0.33	All					
	12/1 (Left)	1000	0	15/1	0.33	All					
2/2 (Leicester Road)	7/2 (Left)	1000	0	15/1	0.33	All	-	-	-	-	-
				15/2	0.33	All					
				15/3	0.33	All					
				15/4	0.33	All					
	7/3 (Left)	1000	0	15/1	0.33	All					
				15/2	0.33	All					
				15/3	0.33	All					
				15/4	0.33	All					
3/1 (A46 (South))	8/1 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
	8/2 (Ahead)	1000	0	7/1	0.33	All					
				7/2	0.33	All					
				7/3	0.33	All					
	13/1 (Left)	1000	0	7/1	0.33	All					
				7/2	0.33	All					
				7/3	0.33	All					
3/2 (A46 (South))	8/3 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					

Full Input Data And Results

				7/3	0.33	All					

Full Input Data And Results

Lane Input Data

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Groby Road)	U	F	2	3	18.0	Geom	-	3.75	0.00	Y	Arm 11 Left	23.22
											Arm 15 Ahead	236.04
1/2 (Groby Road)	U	F	2	3	60.0	Geom	-	3.75	0.00	N	Arm 15 Ahead	111.31
1/3 (Groby Road)	U	F	2	3	60.0	Geom	-	3.85	0.00	N	Arm 15 Ahead	77.85
1/4 (Groby Road)	U	F	2	3	17.0	Geom	-	3.81	0.00	N	Arm 15 Ahead	89.65
2/1 (Leicester Road)	O		2	3	7.5	Geom	-	3.93	0.00	Y	Arm 7 Left	32.93
											Arm 12 Left	15.01
2/2 (Leicester Road)	O		2	3	60.0	Geom	-	3.85	0.00	N	Arm 7 Left	31.75
3/1 (A46 (South))	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 8 Ahead	181.52
											Arm 13 Left	43.66
3/2 (A46 (South))	O		2	3	60.0	Geom	-	3.50	0.00	N	Arm 8 Ahead	257.30
4/1 (Markfield Road)	U	B	2	3	26.0	Geom	-	4.05	0.00	Y	Arm 14 Left	142.68
4/2 (Markfield Road)	U	B	2	3	60.0	Geom	-	3.49	0.00	Y	Arm 9 Ahead	251.41
4/3 (Markfield Road)	U	B	2	3	60.0	Geom	-	3.66	0.00	N	Arm 9 Ahead	218.39
4/4 (Markfield Road)	U	B	2	3	26.0	Geom	-	3.55	0.00	Y	Arm 9 Ahead	284.50
5/1 (A46 (North))	U	D	2	3	60.0	Geom	-	3.59	5.00	Y	Arm 6 Ahead	124.20
											Arm 10 Left	19.69
5/2 (A46 (North))	U	D	2	3	60.0	Geom	-	3.40	5.00	N	Arm 6 Ahead	188.08
5/3 (A46 (North))	U	D	2	3	9.0	Geom	-	3.46	5.00	Y	Arm 6 Ahead	213.20

Full Input Data And Results

6/1 (SE Circulatory)	U	E	2	3	4.8	Geom	-	4.24	0.00	Y	Arm 11 Ahead	67.21
6/2 (SE Circulatory)	U	E	2	3	4.8	Geom	-	3.51	0.00	N	Arm 15 Right	49.87
6/3 (SE Circulatory)	U	E	2	3	4.8	Geom	-	3.59	0.00	N	Arm 15 Right	38.22
7/1 (SW Circulatory)	U		2	3	12.9	User	1800	-	-	-	-	-
7/2 (SW Circulatory)	U		2	3	12.9	User	1800	-	-	-	-	-
7/3 (SW Circulatory)	U		2	3	12.9	User	1800	-	-	-	-	-
8/1 (NW Circulatory)	U	A	2	3	5.7	Geom	-	3.81	0.00	Y	Arm 14 Ahead	70.30
8/2 (NW Circulatory)	U	A	2	3	5.7	Geom	-	3.50	0.00	N	Arm 9 Right	57.73
8/3 (NW Circulatory)	U	A	2	3	5.7	Geom	-	3.67	0.00	N	Arm 9 Right	43.12
9/1 (NE Circulatory)	U	C	2	3	14.9	Geom	-	3.76	0.00	Y	Arm 10 Ahead	1793.40
9/2 (NE Circulatory)	U	C	2	3	14.9	Geom	-	3.70	0.00	N	Arm 6 Right	25.22
											Arm 10 Ahead	3107.39
9/3 (NE Circulatory)	U	C	2	3	14.9	Geom	-	3.75	0.00	N	Arm 6 Right	24.95
10/1 (Groby Road - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
10/2 (Groby Road - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
11/1 (Leicester Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (A46 (South) - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1 (Markfield Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2 (Markfield Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1 (A46 (North) - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

15/1	U		2	3	60.0	User	1800	-	-	-	-	-
15/2	U		2	3	60.0	User	1800	-	-	-	-	-
15/3	U		2	3	60.0	User	1800	-	-	-	-	-
15/4	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Base AM'	08:00	09:00	01:00	
2: '2024 Base PM'	17:00	18:00	01:00	
3: '2028 Furnessed Future AM'	08:00	09:00	01:00	
4: '2028 Furnessed Future PM'	17:00	18:00	01:00	
5: '2028 Furnessed Future + Dev AM'	08:00	09:00	01:00	
6: '2028 Furnessed Future + Dev PM'	17:00	18:00	01:00	
7: '2031 Furnessed Future AM'	08:00	09:00	01:00	
8: '2031 Furnessed Future PM'	17:00	18:00	01:00	
9: '2031 Furnessed Future + Dev AM'	08:00	09:00	01:00	
10: '2031 Furnessed Future + Dev PM'	17:00	18:00	01:00	

Scenario 1: '2024 Base AM' (FG1: '2024 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	107	88	263	204	662
	B	220	0	121	193	177	711
	C	210	29	0	162	1	402
	D	1140	141	249	0	971	2501
	E	52	162	1	787	0	1002
	Tot.	1622	439	459	1405	1353	5278

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2024 Base AM
Junction: A46/ Groby Road/ Markfield Road	
1/1	195
1/2	130
1/3	133
1/4	204
2/1 (short)	314
2/2 (with short)	711(In) 397(Out)
3/1	211
3/2	191
4/1	971
4/2	605
4/3	676
4/4	249
5/1	214
5/2 (with short)	788(In) 381(Out)
5/3 (short)	407
6/1	332
6/2	630
6/3	407
7/1	703
7/2	540
7/3	601
8/1	382
8/2	226
8/3	233
9/1	831
9/2	909
9/3	249
10/1	883
10/2	739
11/1	439
12/1	459
13/1	865
13/2	540
14/1	1353
15/1	338
15/2	510
15/3	540
15/4	204

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	54.9 %	1917	1917
				Arm 15 Ahead	236.04	45.1 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	61.5 %	1883	1883
				Arm 12 Left	15.01	38.5 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	23.2 %	1911	1911
				Arm 13 Left	43.66	76.8 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	75.7 %	1716	1716
				Arm 10 Left	19.69	24.3 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	18.7 % 81.3 %	2101	2101
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2024 Base PM' (FG2: '2024 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	236	133	582	204	1155
	B	142	0	65	194	72	473
	C	125	56	0	150	1	332
	D	542	199	134	0	841	1716
	E	29	337	1	682	0	1049
	Tot.	838	828	333	1608	1118	4725

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2024 Base PM
Junction: A46/ Groby Road/ Markfield Road	
1/1	369
1/2	288
1/3	294
1/4	204
2/1 (short)	240
2/2 (with short)	473(In) 233(Out)
3/1	183
3/2	149
4/1	841
4/2	346
4/3	395
4/4	134
5/1	366
5/2 (with short)	683(In) 332(Out)
5/3 (short)	351
6/1	592
6/2	466
6/3	351
7/1	794
7/2	664
7/3	418
8/1	277
8/2	159
8/3	164
9/1	505
9/2	559
9/3	134
10/1	534
10/2	304
11/1	828
12/1	333
13/1	944
13/2	664
14/1	1118
15/1	268
15/2	619
15/3	645
15/4	204

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	64.0 %	1907	1907
				Arm 15 Ahead	236.04	36.0 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	72.9 %	1894	1894
				Arm 12 Left	15.01	27.1 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	18.0 %	1908	1908
				Arm 13 Left	43.66	82.0 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	92.1 %	1734	1734
				Arm 10 Left	19.69	7.9 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	45.6 % 54.4 %	2068	2068
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2028 Furnessed Future AM' (FG3: '2028 Furnessed Future AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	120	99	371	214	804
	B	202	0	124	262	172	760
	C	198	29	0	157	3	387
	D	1263	171	235	0	959	2628
	E	54	169	1	813	0	1037
	Tot.	1717	489	459	1603	1348	5616

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 3: 2028 Furnessed Future AM
Junction: A46/ Groby Road/ Markfield Road	
1/1	219
1/2	184
1/3	187
1/4	214
2/1 (short)	384
2/2 (with short)	760(In) 376(Out)
3/1	201
3/2	186
4/1	959
4/2	684
4/3	750
4/4	235
5/1	223
5/2 (with short)	814(In) 392(Out)
5/3 (short)	422
6/1	369
6/2	627
6/3	422
7/1	835
7/2	611
7/3	588
8/1	389
8/2	211
8/3	218
9/1	895
9/2	968
9/3	235
10/1	949
10/2	768
11/1	489
12/1	459
13/1	992
13/2	611
14/1	1348
15/1	335
15/2	575
15/3	609
15/4	214

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	54.8 %	1917	1917
				Arm 15 Ahead	236.04	45.2 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	67.7 %	1889	1889
				Arm 12 Left	15.01	32.3 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	21.9 %	1910	1910
				Arm 13 Left	43.66	78.1 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	75.8 %	1717	1717
				Arm 10 Left	19.69	24.2 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	20.7 % 79.3 %	2099	2099
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 Furnessed Future PM' (FG4: '2028 Furnessed Future PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	234	149	559	220	1162
	B	163	0	73	186	78	500
	C	123	47	0	123	1	294
	D	618	195	148	0	899	1860
	E	37	366	1	720	0	1124
	Tot.	941	842	371	1588	1198	4940

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 4: 2028 Furnessed Future PM
Junction: A46/ Groby Road/ Markfield Road	
1/1	383
1/2	277
1/3	282
1/4	220
2/1 (short)	252
2/2 (with short)	500(In) 248(Out)
3/1	157
3/2	137
4/1	899
4/2	379
4/3	434
4/4	148
5/1	403
5/2 (with short)	721(In) 349(Out)
5/3 (short)	372
6/1	608
6/2	497
6/3	372
7/1	804
7/2	661
7/3	461
8/1	299
8/2	165
8/3	168
9/1	544
9/2	602
9/3	148
10/1	581
10/2	360
11/1	842
12/1	371
13/1	927
13/2	661
14/1	1198
15/1	298
15/2	625
15/3	654
15/4	220

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	61.1 %	1910	1910
				Arm 15 Ahead	236.04	38.9 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	71.0 %	1892	1892
				Arm 12 Left	15.01	29.0 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	21.7 %	1910	1910
				Arm 13 Left	43.66	78.3 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	90.8 %	1733	1733
				Arm 10 Left	19.69	9.2 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	40.2 % 59.8 %	2075	2075
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2028 Furnessed Future + Dev AM' (FG5: '2028 Furnessed Future + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	120	99	369	214	802
	B	201	0	123	262	191	777
	C	198	28	0	157	3	386
	D	1273	171	236	0	963	2643
	E	54	173	1	813	0	1041
	Tot.	1726	492	459	1601	1371	5649

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 5: 2028 Furnessed Future + Dev AM
Junction: A46/ Groby Road/ Markfield Road	
1/1	219
1/2	183
1/3	186
1/4	214
2/1 (short)	385
2/2 (with short)	777(In) 392(Out)
3/1	199
3/2	187
4/1	963
4/2	689
4/3	755
4/4	236
5/1	227
5/2 (with short)	814(In) 392(Out)
5/3 (short)	422
6/1	372
6/2	628
6/3	422
7/1	836
7/2	608
7/3	606
8/1	408
8/2	208
8/3	219
9/1	897
9/2	974
9/3	236
10/1	951
10/2	775
11/1	492
12/1	459
13/1	993
13/2	608
14/1	1371
15/1	336
15/2	574
15/3	608
15/4	214

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	54.8 %	1917	1917
				Arm 15 Ahead	236.04	45.2 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	68.1 %	1889	1889
				Arm 12 Left	15.01	31.9 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	21.1 %	1910	1910
				Arm 13 Left	43.66	78.9 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	76.2 %	1717	1717
				Arm 10 Left	19.69	23.8 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	20.4 % 79.6 %	2099	2099
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2028 Furnessed Future + Dev PM' (FG6: '2028 Furnessed Future + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	243	148	556	220	1167
	B	163	0	64	186	90	503
	C	123	47	0	128	1	299
	D	619	197	147	0	899	1862
	E	37	364	1	719	0	1121
	Tot.	942	851	360	1589	1210	4952

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 6: 2028 Furnessed Future + Dev PM
Junction: A46/ Groby Road/ Markfield Road	
1/1	391
1/2	275
1/3	281
1/4	220
2/1 (short)	247
2/2 (with short)	503(In) 256(Out)
3/1	160
3/2	139
4/1	899
4/2	382
4/3	434
4/4	147
5/1	401
5/2 (with short)	720(In) 348(Out)
5/3 (short)	372
6/1	608
6/2	495
6/3	372
7/1	805
7/2	656
7/3	473
8/1	311
8/2	165
8/3	168
9/1	547
9/2	602
9/3	147
10/1	584
10/2	358
11/1	851
12/1	360
13/1	933
13/2	656
14/1	1210
15/1	296
15/2	622
15/3	653
15/4	220

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	62.1 %	1909	1909
				Arm 15 Ahead	236.04	37.9 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	74.1 %	1895	1895
				Arm 12 Left	15.01	25.9 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	20.0 %	1909	1909
				Arm 13 Left	43.66	80.0 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	90.8 %	1733	1733
				Arm 10 Left	19.69	9.2 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	40.5 % 59.5 %	2074	2074
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2031 Furnessed Future AM' (FG7: '2031 Furnessed Future AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	123	105	393	217	838
	B	210	0	132	280	175	797
	C	190	28	0	155	3	376
	D	1292	175	246	0	962	2675
	E	53	166	1	818	0	1038
	Tot.	1745	492	484	1646	1357	5724

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 7: 2031 Furnessed Future AM
Junction: A46/ Groby Road/ Markfield Road	
1/1	228
1/2	196
1/3	197
1/4	217
2/1 (short)	404
2/2 (with short)	797(In) 393(Out)
3/1	194
3/2	182
4/1	962
4/2	701
4/3	766
4/4	246
5/1	219
5/2 (with short)	819(In) 393(Out)
5/3 (short)	426
6/1	369
6/2	639
6/3	426
7/1	860
7/2	631
7/3	602
8/1	395
8/2	210
8/3	218
9/1	911
9/2	984
9/3	246
10/1	964
10/2	781
11/1	492
12/1	484
13/1	1015
13/2	631
14/1	1357
15/1	352
15/2	588
15/3	623
15/4	217

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	53.9 %	1918	1918
				Arm 15 Ahead	236.04	46.1 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	67.3 %	1888	1888
				Arm 12 Left	15.01	32.7 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	20.1 %	1909	1909
				Arm 13 Left	43.66	79.9 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	75.8 %	1717	1717
				Arm 10 Left	19.69	24.2 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	20.6 % 79.4 %	2099	2099
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2031 Furnessed Future PM' (FG8: '2031 Furnessed Future PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	253	151	583	225	1212
	B	169	0	67	176	72	484
	C	126	46	0	115	1	288
	D	673	202	144	0	880	1899
	E	39	374	1	706	0	1120
	Tot.	1007	875	363	1580	1178	5003

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 8: 2031 Furnessed Future PM
Junction: A46/ Groby Road/ Markfield Road	
1/1	404
1/2	289
1/3	294
1/4	225
2/1 (short)	240
2/2 (with short)	484(In) 244(Out)
3/1	152
3/2	136
4/1	880
4/2	409
4/3	466
4/4	144
5/1	413
5/2 (with short)	707(In) 342(Out)
5/3 (short)	365
6/1	622
6/2	486
6/3	365
7/1	803
7/2	662
7/3	466
8/1	298
8/2	168
8/3	173
9/1	577
9/2	639
9/3	144
10/1	616
10/2	391
11/1	875
12/1	363
13/1	918
13/2	662
14/1	1178
15/1	296
15/2	630
15/3	659
15/4	225

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	62.6 %	1908	1908
				Arm 15 Ahead	236.04	37.4 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	72.1 %	1893	1893
				Arm 12 Left	15.01	27.9 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	24.3 %	1911	1911
				Arm 13 Left	43.66	75.7 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	90.6 %	1732	1732
				Arm 10 Left	19.69	9.4 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	38.8 % 61.2 %	2077	2077
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2031 Furnessed Future + Dev AM' (FG9: '2031 Furnessed Future + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	123	105	392	217	837
	B	210	0	131	280	210	831
	C	190	25	0	155	3	373
	D	1311	175	249	0	967	2702
	E	53	171	1	820	0	1045
	Tot.	1764	494	486	1647	1397	5788

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 9: 2031 Furnessed Future + Dev AM
Junction: A46/ Groby Road/ Markfield Road	
1/1	228
1/2	195
1/3	197
1/4	217
2/1 (short)	411
2/2 (with short)	831(In) 420(Out)
3/1	196
3/2	177
4/1	967
4/2	711
4/3	775
4/4	249
5/1	224
5/2 (with short)	821(In) 393(Out)
5/3 (short)	428
6/1	371
6/2	642
6/3	428
7/1	867
7/2	625
7/3	637
8/1	430
8/2	208
8/3	217
9/1	919
9/2	992
9/3	249
10/1	972
10/2	792
11/1	494
12/1	486
13/1	1022
13/2	625
14/1	1397
15/1	355
15/2	587
15/3	625
15/4	217

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	53.9 %	1918	1918
				Arm 15 Ahead	236.04	46.1 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	68.1 %	1889	1889
				Arm 12 Left	15.01	31.9 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	20.9 %	1910	1910
				Arm 13 Left	43.66	79.1 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	76.3 %	1717	1717
				Arm 10 Left	19.69	23.7 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	20.2 % 79.8 %	2099	2099
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2031 Furnessed Future + Dev PM' (FG10: '2031 Furnessed Future + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	288	148	576	225	1237
	B	167	0	66	176	96	505
	C	126	45	0	127	1	299
	D	677	205	142	0	881	1905
	E	39	371	1	710	0	1121
	Tot.	1009	909	357	1589	1203	5067

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 10: 2031 Furnessed Future + Dev PM
Junction: A46/ Groby Road/ Markfield Road	
1/1	436
1/2	285
1/3	291
1/4	225
2/1 (short)	241
2/2 (with short)	505(In) 264(Out)
3/1	160
3/2	139
4/1	881
4/2	415
4/3	467
4/4	142
5/1	410
5/2 (with short)	711(In) 345(Out)
5/3 (short)	366
6/1	621
6/2	487
6/3	366
7/1	804
7/2	658
7/3	488
8/1	322
8/2	167
8/3	171
9/1	582
9/2	638
9/3	142
10/1	621
10/2	388
11/1	909
12/1	357
13/1	931
13/2	658
14/1	1203
15/1	291
15/2	629
15/3	657
15/4	225

Full Input Data And Results

Lane Saturation Flows

Full Input Data And Results

Junction: A46/ Groby Road/ Markfield Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Groby Road)	3.75	0.00	Y	Arm 11 Left	23.22	66.1 %	1905	1905
				Arm 15 Ahead	236.04	33.9 %		
1/2 (Groby Road)	3.75	0.00	N	Arm 15 Ahead	111.31	100.0 %	2102	2102
1/3 (Groby Road)	3.85	0.00	N	Arm 15 Ahead	77.85	100.0 %	2099	2099
1/4 (Groby Road)	3.81	0.00	N	Arm 15 Ahead	89.65	100.0 %	2101	2101
2/1 (Leicester Road)	3.93	0.00	Y	Arm 7 Left	32.93	72.6 %	1893	1893
				Arm 12 Left	15.01	27.4 %		
2/2 (Leicester Road)	3.85	0.00	N	Arm 7 Left	31.75	100.0 %	2044	2044
3/1 (A46 (South))	3.50	0.00	Y	Arm 8 Ahead	181.52	20.6 %	1909	1909
				Arm 13 Left	43.66	79.4 %		
3/2 (A46 (South))	3.50	0.00	N	Arm 8 Ahead	257.30	100.0 %	2093	2093
4/1 (Markfield Road)	4.05	0.00	Y	Arm 14 Left	142.68	100.0 %	1999	1999
4/2 (Markfield Road)	3.49	0.00	Y	Arm 9 Ahead	251.41	100.0 %	1952	1952
4/3 (Markfield Road)	3.66	0.00	N	Arm 9 Ahead	218.39	100.0 %	2106	2106
4/4 (Markfield Road)	3.55	0.00	Y	Arm 9 Ahead	284.50	100.0 %	1960	1960
5/1 (A46 (North))	3.59	5.00	Y	Arm 6 Ahead	124.20	90.5 %	1732	1732
				Arm 10 Left	19.69	9.5 %		
5/2 (A46 (North))	3.40	5.00	N	Arm 6 Ahead	188.08	100.0 %	1870	1870
5/3 (A46 (North))	3.46	5.00	Y	Arm 6 Ahead	213.20	100.0 %	1739	1739
6/1 (SE Circulatory)	4.24	0.00	Y	Arm 11 Ahead	67.21	100.0 %	1994	1994
6/2 (SE Circulatory)	3.51	0.00	N	Arm 15 Right	49.87	100.0 %	2045	2045
6/3 (SE Circulatory)	3.59	0.00	N	Arm 15 Right	38.22	100.0 %	2034	2034
7/1 (SW Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
7/2 (SW Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
7/3 (SW Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
8/1 (NW Circulatory)	3.81	0.00	Y	Arm 14 Ahead	70.30	100.0 %	1954	1954
8/2 (NW Circulatory)	3.50	0.00	N	Arm 9 Right	57.73	100.0 %	2051	2051

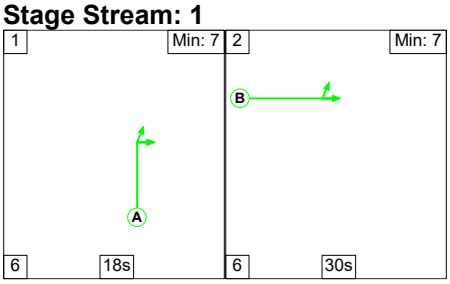
Full Input Data And Results

8/3 (NW Circulatory)	3.67	0.00	N	Arm 9 Right	43.12	100.0 %	2050	2050
9/1 (NE Circulatory)	3.76	0.00	Y	Arm 10 Ahead	1793.40	100.0 %	1990	1990
9/2 (NE Circulatory)	3.70	0.00	N	Arm 6 Right Arm 10 Ahead	25.22 3107.39	39.2 % 60.8 %	2076	2076
9/3 (NE Circulatory)	3.75	0.00	N	Arm 6 Right	24.95	100.0 %	2009	2009
10/1 (Groby Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
10/2 (Groby Road - Exit Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/1 (Leicester Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
12/1 (A46 (South) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/1 (Markfield Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
13/2 (Markfield Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
14/1 (A46 (North) - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						1800	1800
15/2	This lane uses a directly entered Saturation Flow						1800	1800
15/3	This lane uses a directly entered Saturation Flow						1800	1800
15/4	Infinite Saturation Flow						Inf	Inf

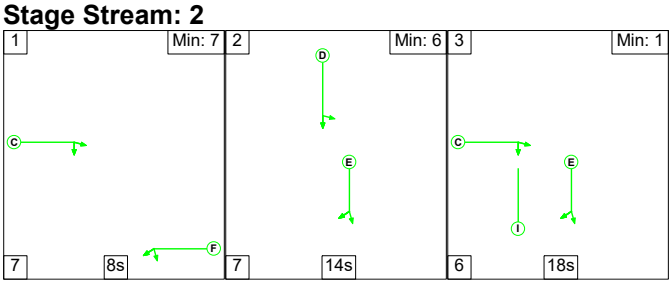
Scenario 1: '2024 Base AM' (FG1: '2024 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

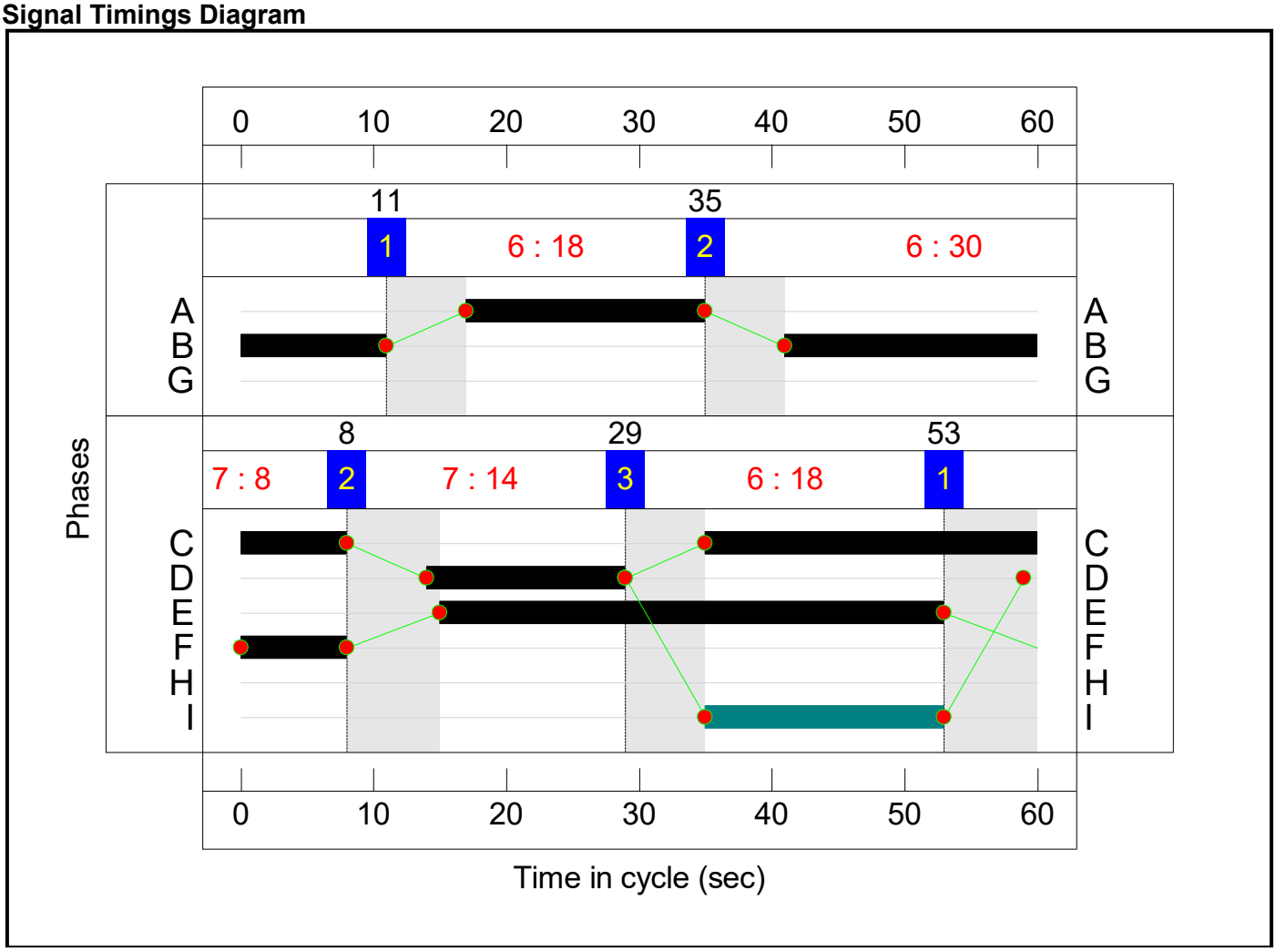
Stage Stream: 1

Stage	1	2
Duration	18	30
Change Point	11	35

Stage Stream: 2

Stage	1	2	3
Duration	8	14	18
Change Point	53	8	29

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.0%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.0%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	8	-	195	1917	288	67.8%
1/2	Groby Road Ahead	U	2	N/A	F		1	8	-	130	2102	315	41.2%
1/3	Groby Road Ahead	U	2	N/A	F		1	8	-	133	2099	315	42.2%
1/4	Groby Road Ahead	U	2	N/A	F		1	8	-	204	2101	315	64.7%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	711	2044:1883	543+446	73.2 : 70.5%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	211	1911	420	50.2%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	191	2093	420	45.5%
4/1	Markfield Road Left	U	1	N/A	B		1	30	-	971	1999	1033	94.0%
4/2	Markfield Road Ahead	U	1	N/A	B		1	30	-	605	1952	1009	60.0%
4/3	Markfield Road Ahead	U	1	N/A	B		1	30	-	676	2106	1088	62.1%
4/4	Markfield Road Ahead	U	1	N/A	B		1	30	-	249	1960	1013	24.6%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	15	-	214	1716	458	46.8%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	15	-	788	1870:1739	434+464	87.8 : 87.8%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	38	-	332	1994	1296	25.6%
6/2	SE Circulatory Right	U	2	N/A	E		1	38	-	630	2045	1329	47.4%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	38	-	407	2034	1322	30.8%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	703	1800	1800	39.1%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	540	1800	1800	30.0%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	601	1800	1800	33.4%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	18	-	382	1954	619	61.7%
8/2	NW Circulatory Right	U	1	N/A	A		1	18	-	226	2051	649	34.8%
8/3	NW Circulatory Right	U	1	N/A	A		1	18	-	233	2050	649	35.9%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	33	-	831	1990	1128	73.7%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	33	-	909	2101	1191	76.4%
9/3	NE Circulatory Right	U	2	N/A	C		1	33	-	249	2009	1138	21.9%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	883	1900	1900	46.5%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	739	1900	1900	38.9%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	865	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1353	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	338	1800	1800	18.8%
15/2	Ahead	U	N/A	N/A	-		-	-	-	510	1800	1800	28.3%
15/3	Ahead	U	N/A	N/A	-		-	-	-	540	1800	1800	30.0%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1824**	**0**	**0**	**25.8**	**24.2**	**0.0**	**50.0**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1824**	**0**	**0**	**25.8**	**24.2**	**0.0**	**50.0**	**-**	**-**	**-**	**-**
1/1	195	195	-	-	-	1.3	1.0	-	2.3	43.2	3.0	1.0	4.1
1/2	130	130	-	-	-	0.8	0.3	-	1.2	32.8	1.9	0.3	2.3
1/3	133	133	-	-	-	0.9	0.4	-	1.2	33.0	2.0	0.4	2.4
1/4	204	204	-	-	-	1.4	0.9	-	2.3	40.0	3.2	0.9	4.1
2/2+2/1	711	711	1422	0	0	0.7	1.3	-	2.0	10.0	3.1	1.3	4.4
3/1	211	211	211	0	0	0.1	0.5	-	0.6	11.0	1.2	0.5	1.7
3/2	191	191	191	0	0	0.1	0.4	-	0.5	10.1	1.1	0.4	1.5
4/1	971	971	-	-	-	3.7	6.5	-	10.2	37.7	15.1	6.5	21.6
4/2	605	605	-	-	-	1.7	0.7	-	2.5	14.6	7.1	0.7	7.8
4/3	676	676	-	-	-	1.9	0.8	-	2.8	14.7	7.9	0.8	8.7
4/4	249	249	-	-	-	0.6	0.2	-	0.7	10.4	2.3	0.2	2.4
5/1	214	214	-	-	-	1.1	0.4	-	1.5	25.8	3.0	0.4	3.4
5/2+5/3	788	788	-	-	-	4.5	3.4	-	7.9	36.1	6.4	3.4	9.8
6/1	332	332	-	-	-	0.4	0.2	-	0.6	6.4	1.8	0.2	1.9
6/2	630	630	-	-	-	0.7	0.4	-	1.2	6.7	4.0	0.4	4.5
6/3	407	407	-	-	-	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
7/1	703	703	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/2	540	540	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
7/3	601	601	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	382	382	-	-	-	0.9	0.8	-	1.7	16.3	5.7	0.8	6.5
8/2	226	226	-	-	-	0.8	0.3	-	1.1	17.5	2.6	0.3	2.9
8/3	233	233	-	-	-	0.9	0.3	-	1.2	18.0	2.6	0.3	2.9
9/1	831	831	-	-	-	1.4	1.4	-	2.8	12.1	5.4	1.4	6.8

Full Input Data And Results

9/2	909	909	-	-	-	1.5	1.6	-	3.1	12.3	5.7	1.6	7.3
9/3	249	249	-	-	-	0.2	0.1	-	0.4	5.5	0.7	0.1	0.8
10/1	883	883	-	-	-	0.0	0.4	-	0.4	1.8	0.1	0.4	0.5
10/2	739	739	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	865	865	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1353	1353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	338	338	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	510	510	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
15/3	540	540	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
15/4	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

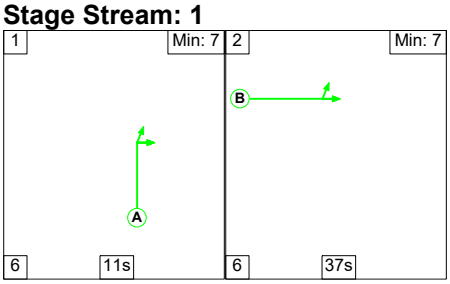
C1	Stream: 1 PRC for Signalled Lanes (%):	-4.5	Total Delay for Signalled Lanes (pcuHr):	20.09	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	2.5	Total Delay for Signalled Lanes (pcuHr):	24.70	Cycle Time (s):	60
	PRC Over All Lanes (%):	-4.5	Total Delay Over All Lanes(pcuHr):	50.01		

Full Input Data And Results

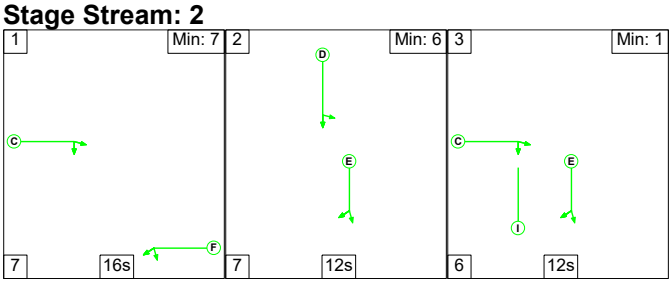
Scenario 2: '2024 Base PM' (FG2: '2024 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

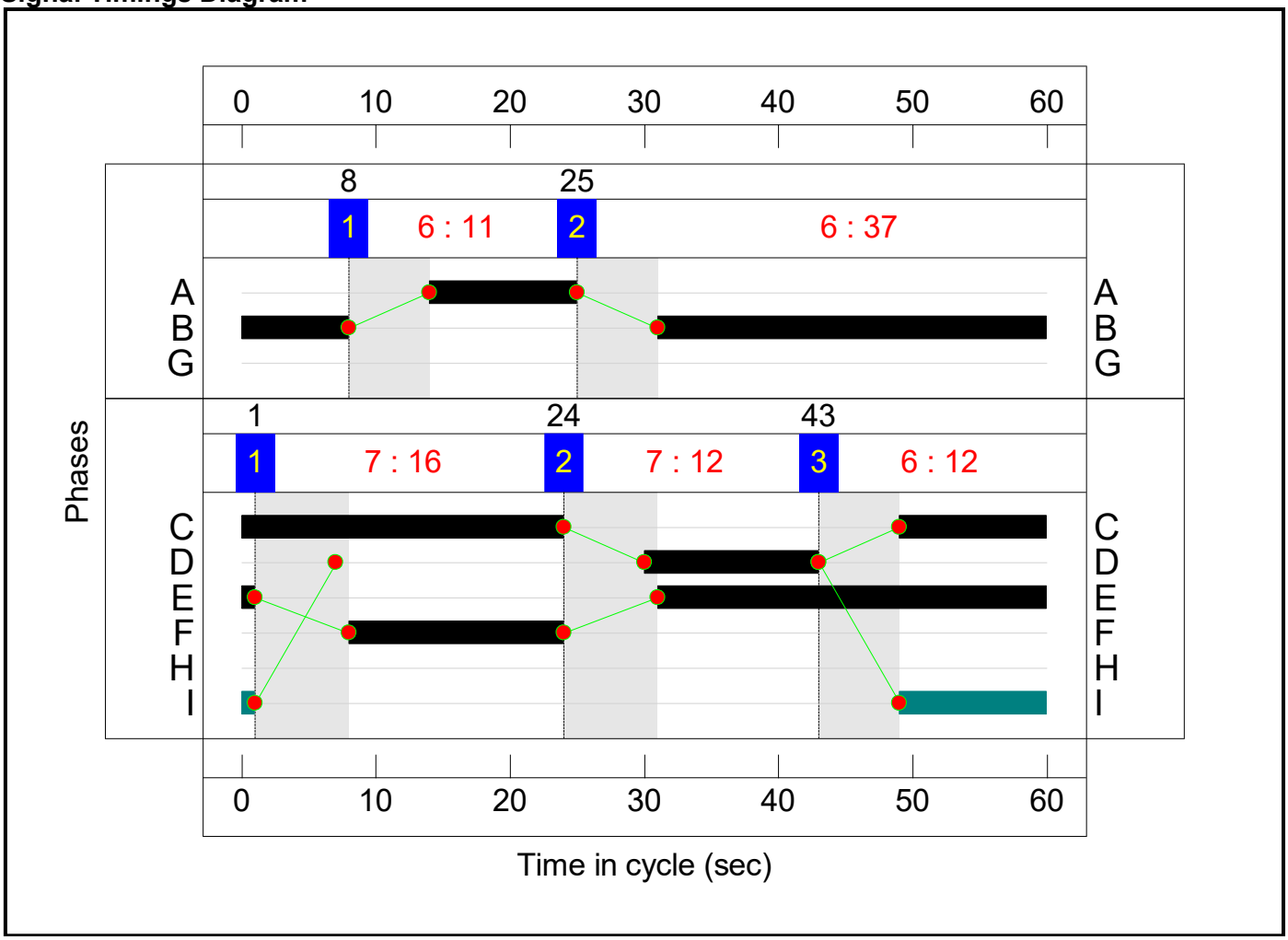
Stage	1	2
Duration	11	37
Change Point	8	25

Stage Stream: 2

Stage	1	2	3
Duration	16	12	12
Change Point	1	24	43

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.5%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.5%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	16	-	369	1907	540	68.3%
1/2	Groby Road Ahead	U	2	N/A	F		1	16	-	288	2102	596	48.4%
1/3	Groby Road Ahead	U	2	N/A	F		1	16	-	294	2099	595	49.4%
1/4	Groby Road Ahead	U	2	N/A	F		1	16	-	204	2101	595	34.3%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	473	2044:1894	526+547	44.3 : 43.9%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	183	1908	438	41.8%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	149	2093	438	34.0%
4/1	Markfield Road Left	U	1	N/A	B		1	37	-	841	1999	1266	66.4%
4/2	Markfield Road Ahead	U	1	N/A	B		1	37	-	346	1952	1236	28.0%
4/3	Markfield Road Ahead	U	1	N/A	B		1	37	-	395	2106	1334	29.6%
4/4	Markfield Road Ahead	U	1	N/A	B		1	37	-	134	1960	1241	10.8%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	13	-	366	1734	405	90.5%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	13	-	683	1870:1739	406+406	81.8 : 86.5%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	30	-	592	1994	1030	57.5%
6/2	SE Circulatory Right	U	2	N/A	E		1	30	-	466	2045	1057	44.1%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	30	-	351	2034	1051	33.4%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	794	1800	1800	44.1%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	664	1800	1800	36.9%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	418	1800	1800	23.2%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	11	-	277	1954	391	70.9%
8/2	NW Circulatory Right	U	1	N/A	A		1	11	-	159	2051	410	38.8%
8/3	NW Circulatory Right	U	1	N/A	A		1	11	-	164	2050	410	40.0%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	35	-	505	1990	1194	42.3%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	35	-	559	2068	1241	45.1%
9/3	NE Circulatory Right	U	2	N/A	C		1	35	-	134	2009	1205	11.1%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	534	1900	1900	28.1%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	304	1900	1900	16.0%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	828	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	944	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	664	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1118	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	268	1800	1800	14.9%
15/2	Ahead	U	N/A	N/A	-		-	-	-	619	1800	1800	34.4%
15/3	Ahead	U	N/A	N/A	-		-	-	-	645	1800	1800	35.8%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1278**	**0**	**0**	**22.3**	**17.0**	**0.0**	**39.3**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1278**	**0**	**0**	**22.3**	**17.0**	**0.0**	**39.3**	**-**	**-**	**-**	**-**
1/1	369	369	-	-	-	2.0	1.1	-	3.0	29.5	5.4	1.1	6.5
1/2	288	288	-	-	-	1.4	0.5	-	1.9	23.7	3.9	0.5	4.4
1/3	294	294	-	-	-	1.5	0.5	-	2.0	23.9	4.1	0.5	4.6
1/4	204	204	-	-	-	1.0	0.3	-	1.2	21.7	2.7	0.3	2.9
2/2+2/1	473	473	946	0	0	0.3	0.4	-	0.7	5.2	1.0	0.4	1.4
3/1	183	183	183	0	0	0.1	0.4	-	0.5	9.4	0.8	0.4	1.2
3/2	149	149	149	0	0	0.1	0.3	-	0.3	8.2	0.6	0.3	0.8
4/1	841	841	-	-	-	1.6	1.0	-	2.6	11.2	8.6	1.0	9.6
4/2	346	346	-	-	-	0.5	0.2	-	0.7	6.9	2.5	0.2	2.7
4/3	395	395	-	-	-	0.5	0.2	-	0.8	6.9	3.0	0.2	3.2
4/4	134	134	-	-	-	0.2	0.1	-	0.2	6.0	0.9	0.1	0.9
5/1	366	366	-	-	-	2.3	3.9	-	6.2	61.1	5.9	3.9	9.8
5/2+5/3	683	683	-	-	-	4.1	2.6	-	6.7	35.3	5.6	2.6	8.1
6/1	592	592	-	-	-	0.6	0.7	-	1.3	7.9	2.3	0.7	3.0
6/2	466	466	-	-	-	0.2	0.4	-	0.6	4.9	0.7	0.4	1.1
6/3	351	351	-	-	-	0.0	0.3	-	0.3	2.6	0.0	0.3	0.3
7/1	794	794	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
7/2	664	664	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/3	418	418	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
8/1	277	277	-	-	-	2.0	1.2	-	3.2	41.3	3.2	1.2	4.4
8/2	159	159	-	-	-	0.9	0.3	-	1.2	27.1	2.4	0.3	2.7
8/3	164	164	-	-	-	0.9	0.3	-	1.3	27.5	2.4	0.3	2.8
9/1	505	505	-	-	-	0.9	0.4	-	1.3	9.0	4.6	0.4	4.9

Full Input Data And Results

9/2	559	559	-	-	-	1.0	0.4	-	1.4	9.3	5.3	0.4	5.7
9/3	134	134	-	-	-	0.2	0.1	-	0.3	7.3	1.3	0.1	1.4
10/1	534	534	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/2	304	304	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
11/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	944	944	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1118	1118	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	268	268	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	619	619	-	-	-	0.0	0.3	-	0.3	1.6	0.2	0.3	0.4
15/3	645	645	-	-	-	0.0	0.3	-	0.3	1.6	0.2	0.3	0.5
15/4	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

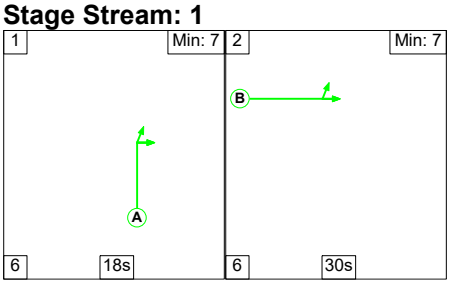
C1	Stream: 1 PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	9.88	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-0.5	Total Delay for Signalled Lanes (pcuHr):	26.17	Cycle Time (s):	60
	PRC Over All Lanes (%):	-0.5	Total Delay Over All Lanes(pcuHr):	39.32		

Full Input Data And Results

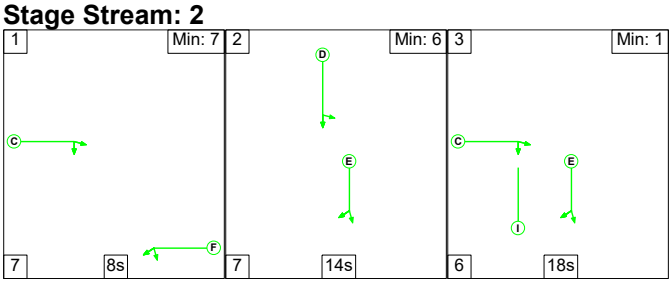
Scenario 3: '2028 Furnessed Future AM' (FG3: '2028 Furnessed Future AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

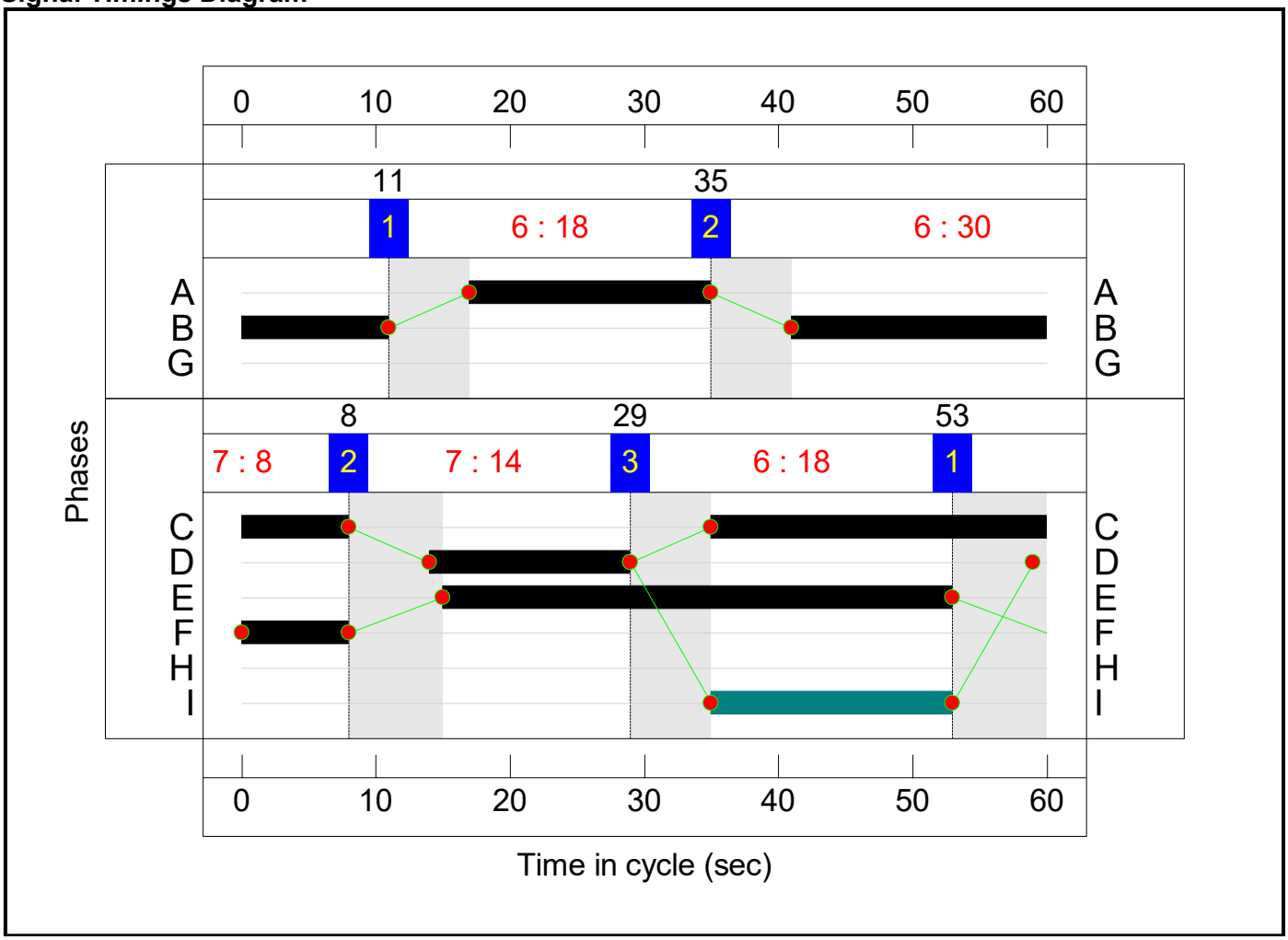
Stage	1	2
Duration	18	30
Change Point	11	35

Stage Stream: 2

Stage	1	2	3
Duration	8	14	18
Change Point	53	8	29

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.9%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.9%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	8	-	219	1917	288	76.2%
1/2	Groby Road Ahead	U	2	N/A	F		1	8	-	184	2102	315	58.4%
1/3	Groby Road Ahead	U	2	N/A	F		1	8	-	187	2099	315	59.4%
1/4	Groby Road Ahead	U	2	N/A	F		1	8	-	214	2101	315	67.9%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	760	2044:1889	522+538	72.0 : 71.3%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	201	1910	379	53.1%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	186	2093	379	49.1%
4/1	Markfield Road Left	U	1	N/A	B		1	30	-	959	1999	1033	92.9%
4/2	Markfield Road Ahead	U	1	N/A	B		1	30	-	684	1952	1009	67.8%
4/3	Markfield Road Ahead	U	1	N/A	B		1	30	-	750	2106	1088	68.9%
4/4	Markfield Road Ahead	U	1	N/A	B		1	30	-	235	1960	1013	23.2%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	15	-	223	1717	458	48.7%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	15	-	814	1870:1739	431+464	91.0 : 91.0%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	38	-	369	1994	1296	28.5%
6/2	SE Circulatory Right	U	2	N/A	E		1	38	-	627	2045	1329	47.2%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	38	-	422	2034	1322	31.9%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	835	1800	1800	46.4%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	611	1800	1800	33.9%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	588	1800	1800	32.7%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	18	-	389	1954	619	62.9%
8/2	NW Circulatory Right	U	1	N/A	A		1	18	-	211	2051	649	32.5%
8/3	NW Circulatory Right	U	1	N/A	A		1	18	-	218	2050	649	33.6%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	33	-	895	1990	1128	79.4%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	33	-	968	2099	1189	81.4%
9/3	NE Circulatory Right	U	2	N/A	C		1	33	-	235	2009	1138	20.6%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	949	1900	1900	49.9%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	768	1900	1900	40.4%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	992	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	611	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1348	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	335	1800	1800	18.6%
15/2	Ahead	U	N/A	N/A	-		-	-	-	575	1800	1800	31.9%
15/3	Ahead	U	N/A	N/A	-		-	-	-	609	1800	1800	33.8%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1907**	**0**	**0**	**27.7**	**28.0**	**0.0**	**55.7**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1907**	**0**	**0**	**27.7**	**28.0**	**0.0**	**55.7**	**-**	**-**	**-**	**-**
1/1	219	219	-	-	-	1.5	1.5	-	3.0	49.6	3.5	1.5	5.0
1/2	184	184	-	-	-	1.2	0.7	-	1.9	37.3	2.8	0.7	3.5
1/3	187	187	-	-	-	1.2	0.7	-	2.0	37.7	2.9	0.7	3.6
1/4	214	214	-	-	-	1.4	1.0	-	2.5	41.6	3.3	1.0	4.4
2/2+2/1	760	760	1520	0	0	0.9	1.3	-	2.1	10.0	2.8	1.3	4.1
3/1	201	201	201	0	0	0.2	0.6	-	0.7	12.9	1.2	0.6	1.7
3/2	186	186	186	0	0	0.1	0.5	-	0.6	11.9	1.0	0.5	1.5
4/1	959	959	-	-	-	3.6	5.6	-	9.2	34.6	14.7	5.6	20.3
4/2	684	684	-	-	-	2.1	1.0	-	3.1	16.3	8.4	1.0	9.4
4/3	750	750	-	-	-	2.3	1.1	-	3.4	16.2	9.4	1.1	10.5
4/4	235	235	-	-	-	0.5	0.2	-	0.7	10.3	2.1	0.2	2.2
5/1	223	223	-	-	-	1.1	0.5	-	1.6	26.2	3.1	0.5	3.6
5/2+5/3	814	814	-	-	-	4.7	4.5	-	9.3	41.0	6.8	4.5	11.3
6/1	369	369	-	-	-	0.5	0.2	-	0.7	6.8	2.3	0.2	2.5
6/2	627	627	-	-	-	0.6	0.4	-	1.1	6.3	2.9	0.4	3.4
6/3	422	422	-	-	-	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
7/1	835	835	-	-	-	0.0	0.4	-	0.4	1.9	0.0	0.4	0.4
7/2	611	611	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/3	588	588	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
8/1	389	389	-	-	-	0.9	0.8	-	1.8	16.3	5.7	0.8	6.6
8/2	211	211	-	-	-	0.8	0.2	-	1.0	17.2	2.4	0.2	2.7
8/3	218	218	-	-	-	0.8	0.3	-	1.1	17.7	2.5	0.3	2.7
9/1	895	895	-	-	-	1.5	1.9	-	3.3	13.4	5.4	1.9	7.3

Full Input Data And Results

9/2	968	968	-	-	-	1.5	2.1	-	3.7	13.7	5.7	2.1	7.8
9/3	235	235	-	-	-	0.2	0.1	-	0.4	5.5	0.6	0.1	0.8
10/1	949	949	-	-	-	0.0	0.5	-	0.5	1.9	0.1	0.5	0.6
10/2	768	768	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
11/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	992	992	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1348	1348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	335	335	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	575	575	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.3
15/3	609	609	-	-	-	0.0	0.3	-	0.3	1.5	0.1	0.3	0.3
15/4	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

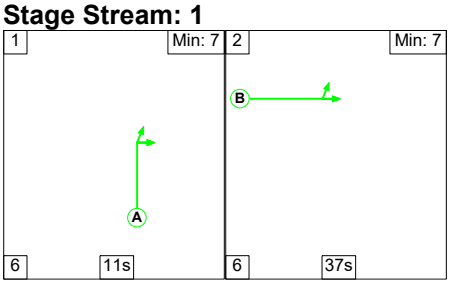
C1	Stream: 1 PRC for Signalled Lanes (%):	-3.2	Total Delay for Signalled Lanes (pcuHr):	20.20	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	-1.1	Total Delay for Signalled Lanes (pcuHr):	29.66	Cycle Time (s): 60
	PRC Over All Lanes (%):	-3.2	Total Delay Over All Lanes(pcuHr):	55.70	

Full Input Data And Results

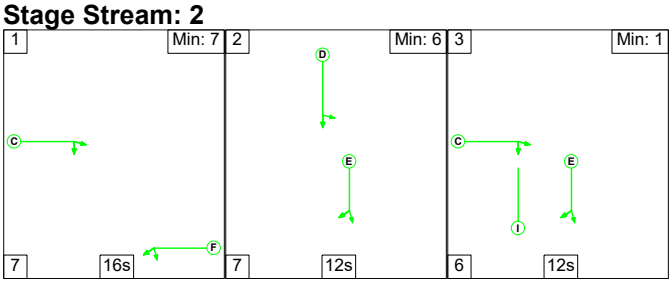
Scenario 4: '2028 Furnessed Future PM' (FG4: '2028 Furnessed Future PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

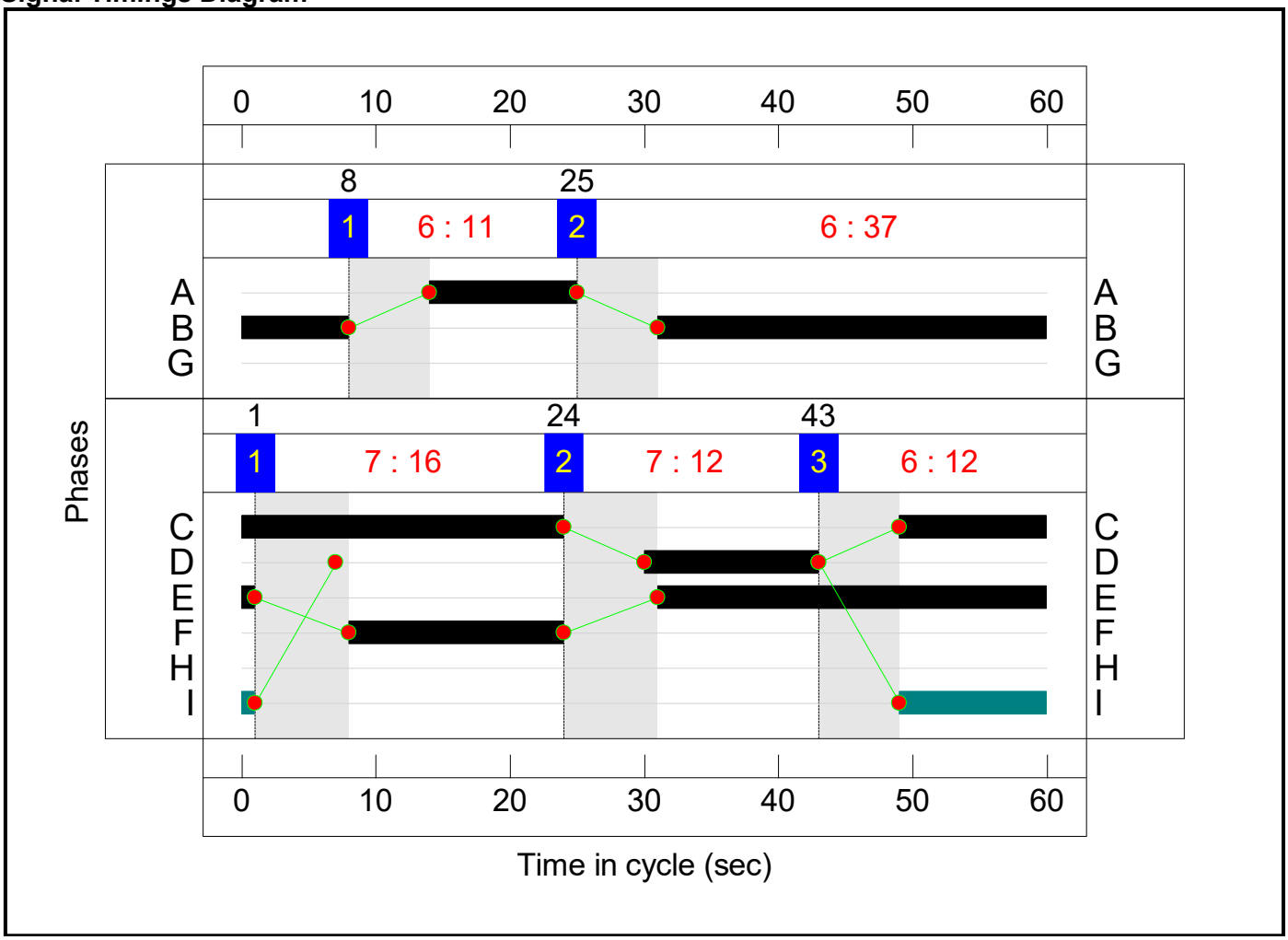
Stage	1	2
Duration	11	37
Change Point	8	25

Stage Stream: 2

Stage	1	2	3
Duration	16	12	12
Change Point	1	24	43

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.7%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.7%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	16	-	383	1910	541	70.8%
1/2	Groby Road Ahead	U	2	N/A	F		1	16	-	277	2102	596	46.5%
1/3	Groby Road Ahead	U	2	N/A	F		1	16	-	282	2099	595	47.4%
1/4	Groby Road Ahead	U	2	N/A	F		1	16	-	220	2101	595	37.0%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	500	2044:1892	510+533	48.6 : 47.3%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	157	1910	424	37.0%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	137	2093	424	32.3%
4/1	Markfield Road Left	U	1	N/A	B		1	37	-	899	1999	1266	71.0%
4/2	Markfield Road Ahead	U	1	N/A	B		1	37	-	379	1952	1236	30.7%
4/3	Markfield Road Ahead	U	1	N/A	B		1	37	-	434	2106	1334	32.5%
4/4	Markfield Road Ahead	U	1	N/A	B		1	37	-	148	1960	1241	11.9%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	13	-	403	1733	404	99.7%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	13	-	721	1870:1739	395+406	88.3 : 91.7%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	30	-	608	1994	1030	59.0%
6/2	SE Circulatory Right	U	2	N/A	E		1	30	-	497	2045	1057	47.0%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	30	-	372	2034	1051	35.4%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	804	1800	1800	44.7%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	661	1800	1800	36.7%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	461	1800	1800	25.6%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	11	-	299	1954	391	76.5%
8/2	NW Circulatory Right	U	1	N/A	A		1	11	-	165	2051	410	40.2%
8/3	NW Circulatory Right	U	1	N/A	A		1	11	-	168	2050	410	41.0%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	35	-	544	1990	1194	45.6%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	35	-	602	2075	1245	48.4%
9/3	NE Circulatory Right	U	2	N/A	C		1	35	-	148	2009	1205	12.3%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	581	1900	1900	30.6%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	360	1900	1900	18.9%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	842	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	927	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1198	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	298	1800	1800	16.6%
15/2	Ahead	U	N/A	N/A	-		-	-	-	625	1800	1800	34.7%
15/3	Ahead	U	N/A	N/A	-		-	-	-	654	1800	1800	36.3%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1294**	**0**	**0**	**23.9**	**25.4**	**0.0**	**49.3**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1294**	**0**	**0**	**23.9**	**25.4**	**0.0**	**49.3**	**-**	**-**	**-**	**-**
1/1	383	383	-	-	-	2.1	1.2	-	3.2	30.5	5.6	1.2	6.8
1/2	277	277	-	-	-	1.4	0.4	-	1.8	23.4	3.8	0.4	4.2
1/3	282	282	-	-	-	1.4	0.4	-	1.8	23.6	3.8	0.4	4.3
1/4	220	220	-	-	-	1.1	0.3	-	1.3	22.0	2.9	0.3	3.2
2/2+2/1	500	500	1000	0	0	0.3	0.5	-	0.8	5.8	1.1	0.5	1.6
3/1	157	157	157	0	0	0.1	0.3	-	0.4	8.9	0.7	0.3	1.0
3/2	137	137	137	0	0	0.1	0.2	-	0.3	8.2	0.6	0.2	0.8
4/1	899	899	-	-	-	1.8	1.2	-	3.0	12.2	9.7	1.2	11.0
4/2	379	379	-	-	-	0.5	0.2	-	0.7	7.1	2.8	0.2	3.1
4/3	434	434	-	-	-	0.6	0.2	-	0.9	7.1	3.3	0.2	3.5
4/4	148	148	-	-	-	0.2	0.1	-	0.2	6.0	0.9	0.1	1.0
5/1	403	403	-	-	-	2.6	9.7	-	12.3	109.6	6.6	9.7	16.3
5/2+5/3	721	721	-	-	-	4.4	4.1	-	8.5	42.5	6.0	4.1	10.1
6/1	608	608	-	-	-	0.7	0.7	-	1.4	8.3	2.4	0.7	3.1
6/2	497	497	-	-	-	0.3	0.4	-	0.7	5.2	0.8	0.4	1.2
6/3	372	372	-	-	-	0.0	0.3	-	0.3	2.7	0.0	0.3	0.3
7/1	804	804	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
7/2	661	661	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/3	461	461	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
8/1	299	299	-	-	-	2.2	1.6	-	3.8	45.5	3.5	1.6	5.1
8/2	165	165	-	-	-	0.9	0.3	-	1.2	27.2	2.5	0.3	2.8
8/3	168	168	-	-	-	0.9	0.3	-	1.3	27.6	2.5	0.3	2.8
9/1	544	544	-	-	-	1.0	0.4	-	1.4	9.4	5.1	0.4	5.5

Full Input Data And Results

9/2	602	602	-	-	-	1.1	0.5	-	1.6	9.7	5.9	0.5	6.4
9/3	148	148	-	-	-	0.2	0.1	-	0.3	7.3	1.4	0.1	1.5
10/1	581	581	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
10/2	360	360	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/1	842	842	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	927	927	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1198	1198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	298	298	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	625	625	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/3	654	654	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/4	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

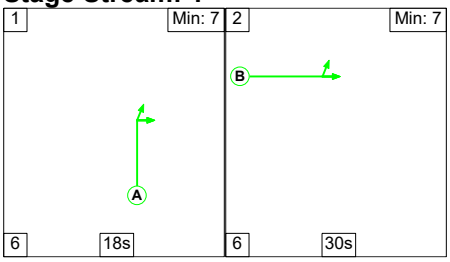
C1	Stream: 1 PRC for Signalled Lanes (%):	17.6	Total Delay for Signalled Lanes (pcuHr):	11.21	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-10.7	Total Delay for Signalled Lanes (pcuHr):	34.74	Cycle Time (s):	60
	PRC Over All Lanes (%):	-10.7	Total Delay Over All Lanes(pcuHr):	49.33		

Full Input Data And Results

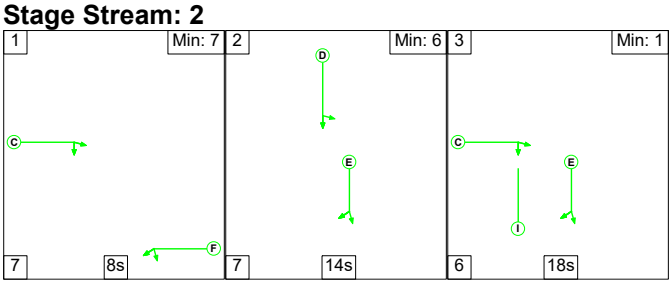
Scenario 5: '2028 Furnessed Future + Dev AM' (FG5: '2028 Furnessed Future + Dev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

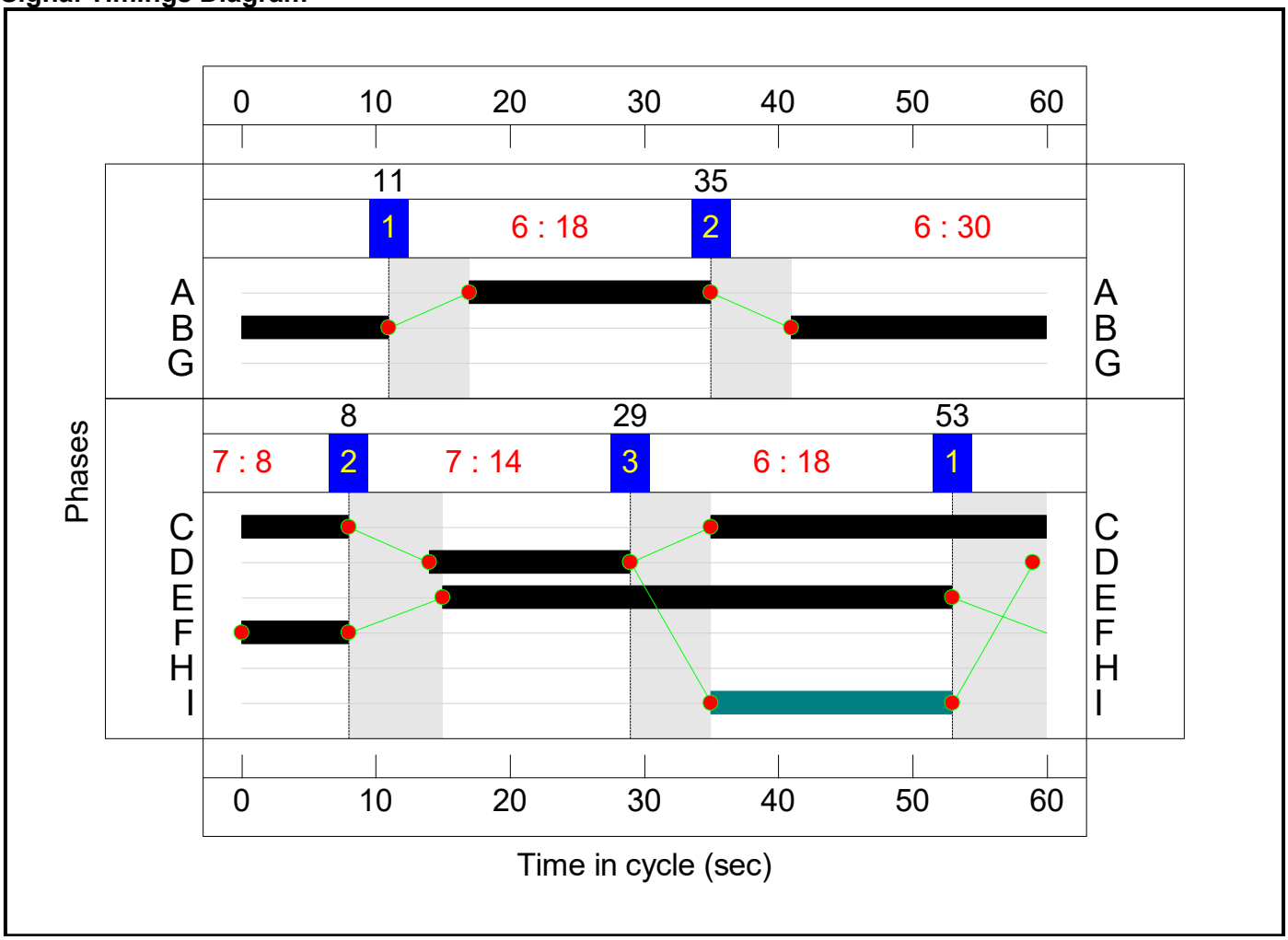
Stage	1	2
Duration	18	30
Change Point	11	35

Stage Stream: 2

Stage	1	2	3
Duration	8	14	18
Change Point	53	8	29

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.2%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.2%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	8	-	219	1917	288	76.2%
1/2	Groby Road Ahead	U	2	N/A	F		1	8	-	183	2102	315	58.0%
1/3	Groby Road Ahead	U	2	N/A	F		1	8	-	186	2099	315	59.1%
1/4	Groby Road Ahead	U	2	N/A	F		1	8	-	214	2101	315	67.9%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	777	2044:1889	522+538	75.1 : 71.5%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	199	1910	373	53.3%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	187	2093	373	50.1%
4/1	Markfield Road Left	U	1	N/A	B		1	30	-	963	1999	1033	93.2%
4/2	Markfield Road Ahead	U	1	N/A	B		1	30	-	689	1952	1009	68.3%
4/3	Markfield Road Ahead	U	1	N/A	B		1	30	-	755	2106	1088	69.4%
4/4	Markfield Road Ahead	U	1	N/A	B		1	30	-	236	1960	1013	23.3%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	15	-	227	1717	458	49.6%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	15	-	814	1870:1739	431+464	91.0 : 91.0%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	38	-	372	1994	1296	28.7%
6/2	SE Circulatory Right	U	2	N/A	E		1	38	-	628	2045	1329	47.2%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	38	-	422	2034	1322	31.9%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	836	1800	1800	46.4%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	608	1800	1800	33.8%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	606	1800	1800	33.7%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	18	-	408	1954	619	65.9%
8/2	NW Circulatory Right	U	1	N/A	A		1	18	-	208	2051	649	32.0%
8/3	NW Circulatory Right	U	1	N/A	A		1	18	-	219	2050	649	33.7%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	33	-	897	1990	1128	79.5%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	33	-	974	2099	1189	81.9%
9/3	NE Circulatory Right	U	2	N/A	C		1	33	-	236	2009	1138	20.7%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	951	1900	1900	50.1%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	775	1900	1900	40.8%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	993	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1371	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	336	1800	1800	18.7%
15/2	Ahead	U	N/A	N/A	-		-	-	-	574	1800	1800	31.9%
15/3	Ahead	U	N/A	N/A	-		-	-	-	608	1800	1800	33.8%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1940**	**0**	**0**	**27.9**	**28.7**	**0.0**	**56.6**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1940**	**0**	**0**	**27.9**	**28.7**	**0.0**	**56.6**	**-**	**-**	**-**	**-**
1/1	219	219	-	-	-	1.5	1.5	-	3.0	49.6	3.5	1.5	5.0
1/2	183	183	-	-	-	1.2	0.7	-	1.9	37.2	2.8	0.7	3.5
1/3	186	186	-	-	-	1.2	0.7	-	1.9	37.6	2.8	0.7	3.6
1/4	214	214	-	-	-	1.4	1.0	-	2.5	41.6	3.3	1.0	4.4
2/2+2/1	777	777	1554	0	0	0.9	1.4	-	2.3	10.5	3.0	1.4	4.4
3/1	199	199	199	0	0	0.2	0.6	-	0.7	13.1	1.2	0.6	1.7
3/2	187	187	187	0	0	0.1	0.5	-	0.6	12.3	1.0	0.5	1.5
4/1	963	963	-	-	-	3.6	5.9	-	9.5	35.6	14.7	5.9	20.6
4/2	689	689	-	-	-	2.1	1.1	-	3.1	16.4	8.4	1.1	9.5
4/3	755	755	-	-	-	2.3	1.1	-	3.4	16.3	9.4	1.1	10.6
4/4	236	236	-	-	-	0.5	0.2	-	0.7	10.3	2.1	0.2	2.2
5/1	227	227	-	-	-	1.2	0.5	-	1.7	26.4	3.2	0.5	3.6
5/2+5/3	814	814	-	-	-	4.7	4.5	-	9.3	41.0	6.8	4.5	11.3
6/1	372	372	-	-	-	0.5	0.2	-	0.7	6.8	2.3	0.2	2.5
6/2	628	628	-	-	-	0.7	0.4	-	1.1	6.3	3.0	0.4	3.4
6/3	422	422	-	-	-	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
7/1	836	836	-	-	-	0.0	0.4	-	0.4	1.9	0.0	0.4	0.4
7/2	608	608	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/3	606	606	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	408	408	-	-	-	1.0	1.0	-	2.0	17.4	6.1	1.0	7.1
8/2	208	208	-	-	-	0.8	0.2	-	1.0	17.1	2.4	0.2	2.6
8/3	219	219	-	-	-	0.8	0.3	-	1.1	17.7	2.5	0.3	2.7
9/1	897	897	-	-	-	1.4	1.9	-	3.4	13.5	5.3	1.9	7.2

Full Input Data And Results

9/2	974	974	-	-	-	1.6	2.2	-	3.8	14.0	5.7	2.2	7.9
9/3	236	236	-	-	-	0.2	0.1	-	0.4	5.5	0.6	0.1	0.8
10/1	951	951	-	-	-	0.0	0.5	-	0.5	1.9	0.1	0.5	0.6
10/2	775	775	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
11/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	993	993	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1371	1371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	336	336	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	574	574	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.3
15/3	608	608	-	-	-	0.0	0.3	-	0.3	1.5	0.1	0.3	0.3
15/4	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

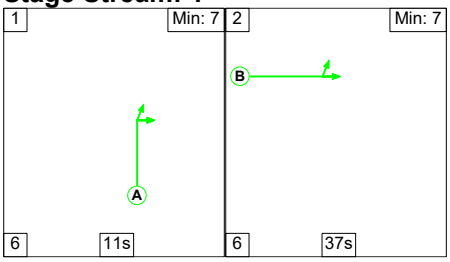
C1	Stream: 1 PRC for Signalled Lanes (%):	-3.6	Total Delay for Signalled Lanes (pcuHr):	20.79	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	-1.1	Total Delay for Signalled Lanes (pcuHr):	29.78	Cycle Time (s): 60
	PRC Over All Lanes (%):	-3.6	Total Delay Over All Lanes(pcuHr):	56.59	

Full Input Data And Results

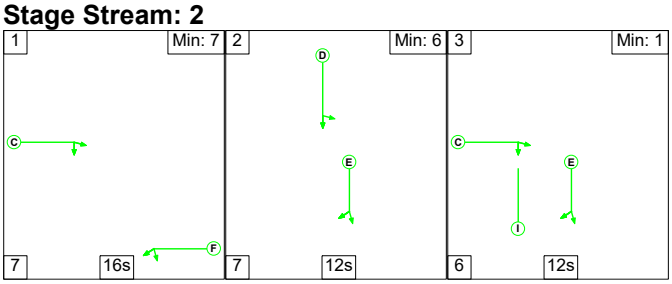
Scenario 6: '2028 Furnessed Future + Dev PM' (FG6: '2028 Furnessed Future + Dev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

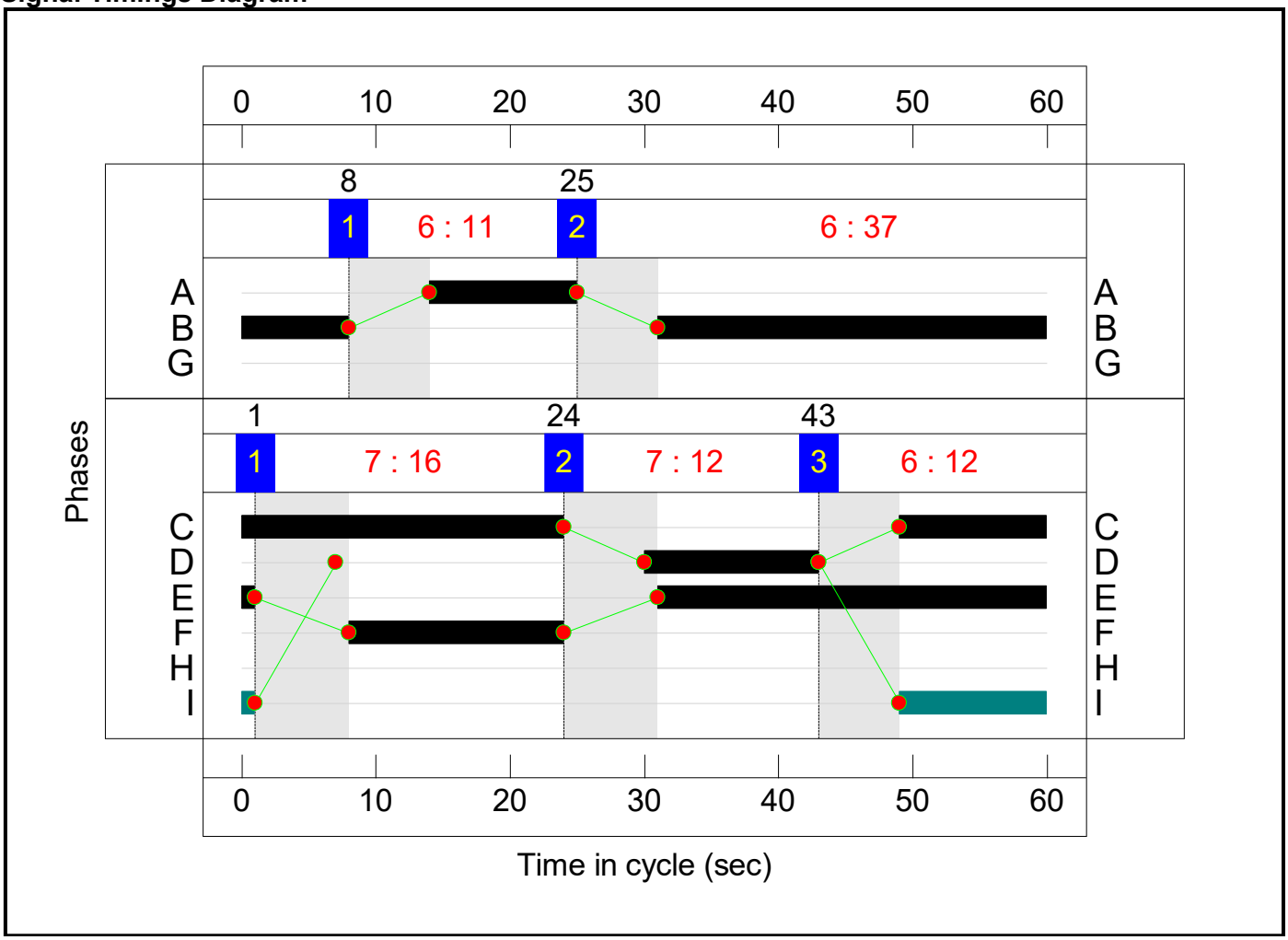
Stage	1	2
Duration	11	37
Change Point	8	25

Stage Stream: 2

Stage	1	2	3
Duration	16	12	12
Change Point	1	24	43

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.2%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.2%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	16	-	391	1909	541	72.3%
1/2	Groby Road Ahead	U	2	N/A	F		1	16	-	275	2102	596	46.2%
1/3	Groby Road Ahead	U	2	N/A	F		1	16	-	281	2099	595	47.2%
1/4	Groby Road Ahead	U	2	N/A	F		1	16	-	220	2101	595	37.0%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	503	2044:1895	511+531	50.1 : 46.5%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	160	1909	421	38.0%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	139	2093	421	33.0%
4/1	Markfield Road Left	U	1	N/A	B		1	37	-	899	1999	1266	71.0%
4/2	Markfield Road Ahead	U	1	N/A	B		1	37	-	382	1952	1236	30.9%
4/3	Markfield Road Ahead	U	1	N/A	B		1	37	-	434	2106	1334	32.5%
4/4	Markfield Road Ahead	U	1	N/A	B		1	37	-	147	1960	1241	11.8%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	13	-	401	1733	404	99.2%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	13	-	720	1870:1739	392+406	88.9 : 91.7%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	30	-	608	1994	1030	59.0%
6/2	SE Circulatory Right	U	2	N/A	E		1	30	-	495	2045	1057	46.8%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	30	-	372	2034	1051	35.4%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	805	1800	1800	44.7%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	656	1800	1800	36.4%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	473	1800	1800	26.3%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	11	-	311	1954	391	79.6%
8/2	NW Circulatory Right	U	1	N/A	A		1	11	-	165	2051	410	40.2%
8/3	NW Circulatory Right	U	1	N/A	A		1	11	-	168	2050	410	41.0%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	35	-	547	1990	1194	45.8%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	35	-	602	2074	1244	48.4%
9/3	NE Circulatory Right	U	2	N/A	C		1	35	-	147	2009	1205	12.2%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	584	1900	1900	30.7%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	358	1900	1900	18.8%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	851	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1210	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	296	1800	1800	16.4%
15/2	Ahead	U	N/A	N/A	-		-	-	-	622	1800	1800	34.6%
15/3	Ahead	U	N/A	N/A	-		-	-	-	653	1800	1800	36.3%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1305**	**0**	**0**	**24.0**	**25.4**	**0.0**	**49.5**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1305**	**0**	**0**	**24.0**	**25.4**	**0.0**	**49.5**	**-**	**-**	**-**	**-**
1/1	391	391	-	-	-	2.1	1.3	-	3.4	31.2	5.9	1.3	7.1
1/2	275	275	-	-	-	1.4	0.4	-	1.8	23.3	3.7	0.4	4.2
1/3	281	281	-	-	-	1.4	0.4	-	1.8	23.5	3.8	0.4	4.3
1/4	220	220	-	-	-	1.1	0.3	-	1.3	22.0	2.9	0.3	3.2
2/2+2/1	503	503	1006	0	0	0.3	0.5	-	0.8	5.8	1.1	0.5	1.6
3/1	160	160	160	0	0	0.1	0.3	-	0.4	9.1	0.7	0.3	1.0
3/2	139	139	139	0	0	0.1	0.2	-	0.3	8.4	0.6	0.2	0.8
4/1	899	899	-	-	-	1.8	1.2	-	3.0	12.2	9.7	1.2	11.0
4/2	382	382	-	-	-	0.5	0.2	-	0.8	7.1	2.9	0.2	3.1
4/3	434	434	-	-	-	0.6	0.2	-	0.9	7.1	3.3	0.2	3.5
4/4	147	147	-	-	-	0.2	0.1	-	0.2	6.0	0.9	0.1	1.0
5/1	401	401	-	-	-	2.6	9.2	-	11.8	105.6	6.6	9.2	15.8
5/2+5/3	720	720	-	-	-	4.4	4.2	-	8.6	43.0	6.0	4.2	10.2
6/1	608	608	-	-	-	0.7	0.7	-	1.4	8.4	2.4	0.7	3.1
6/2	495	495	-	-	-	0.3	0.4	-	0.7	5.2	0.8	0.4	1.2
6/3	372	372	-	-	-	0.0	0.3	-	0.3	2.7	0.0	0.3	0.3
7/1	805	805	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
7/2	656	656	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/3	473	473	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
8/1	311	311	-	-	-	2.3	1.9	-	4.1	48.0	3.7	1.9	5.5
8/2	165	165	-	-	-	0.9	0.3	-	1.2	27.1	2.5	0.3	2.8
8/3	168	168	-	-	-	0.9	0.3	-	1.3	27.6	2.5	0.3	2.8
9/1	547	547	-	-	-	1.0	0.4	-	1.4	9.4	5.1	0.4	5.6

Full Input Data And Results

9/2	602	602	-	-	-	1.1	0.5	-	1.6	9.7	5.9	0.5	6.4
9/3	147	147	-	-	-	0.2	0.1	-	0.3	7.3	1.4	0.1	1.5
10/1	584	584	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
10/2	358	358	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/1	851	851	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1210	1210	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	296	296	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	622	622	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/3	653	653	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/4	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

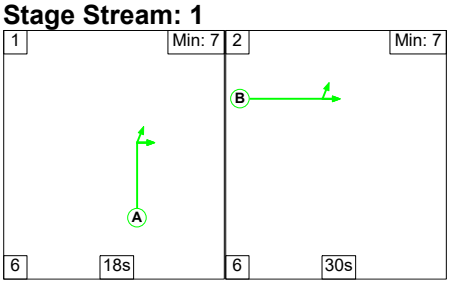
C1	Stream: 1 PRC for Signalled Lanes (%):	13.1	Total Delay for Signalled Lanes (pcuHr):	11.58	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-10.2	Total Delay for Signalled Lanes (pcuHr):	34.46	Cycle Time (s):	60
	PRC Over All Lanes (%):	-10.2	Total Delay Over All Lanes(pcuHr):	49.45		

Full Input Data And Results

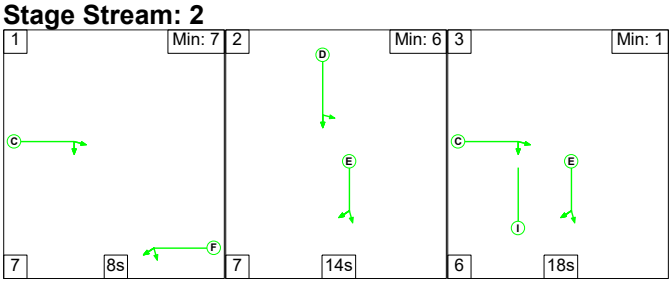
Scenario 7: '2031 Furnessed Future AM' (FG7: '2031 Furnessed Future AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

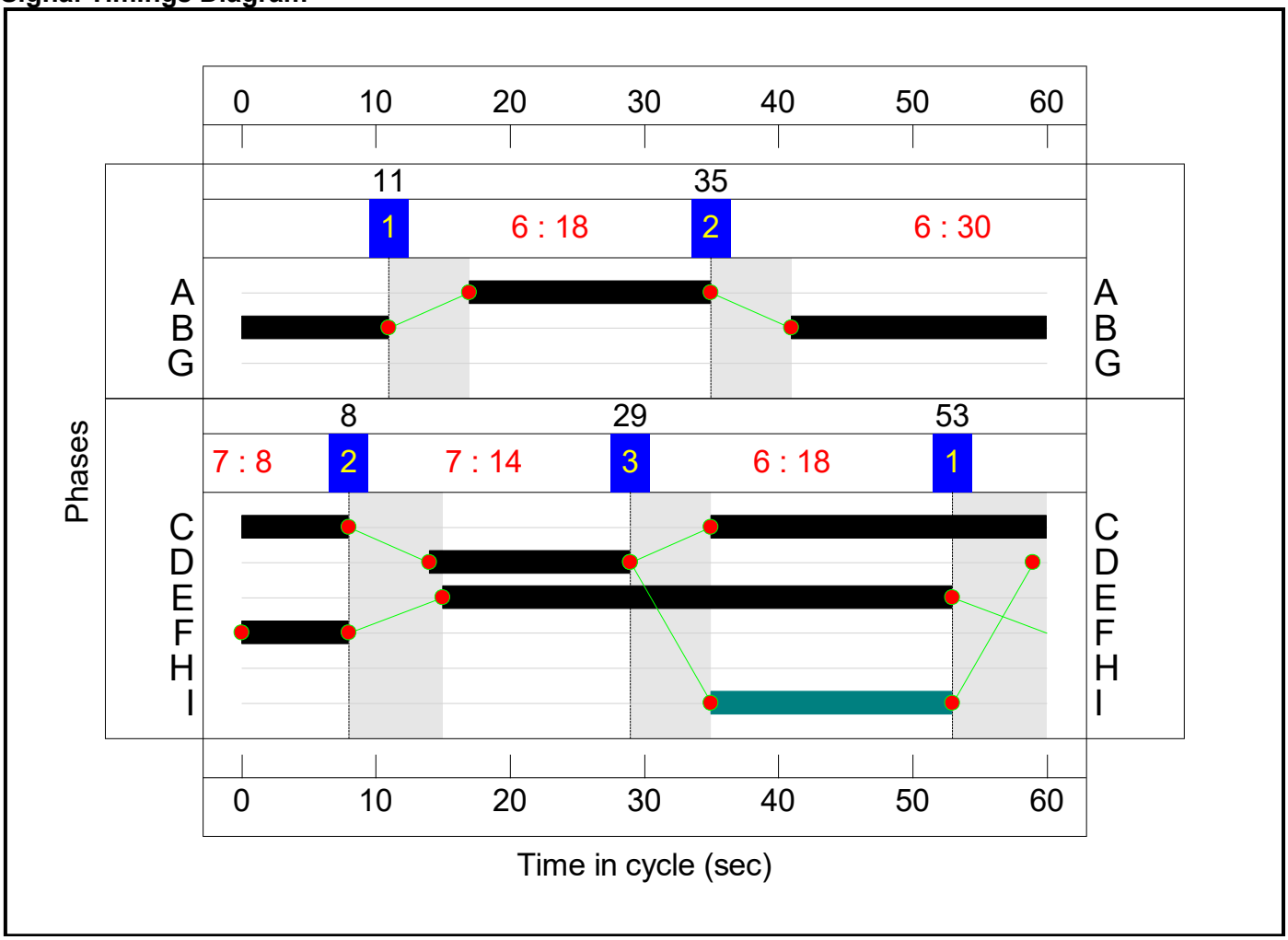
Stage	1	2
Duration	18	30
Change Point	11	35

Stage Stream: 2

Stage	1	2	3
Duration	8	14	18
Change Point	53	8	29

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.1%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.1%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	8	-	228	1918	288	79.2%
1/2	Groby Road Ahead	U	2	N/A	F		1	8	-	196	2102	315	62.2%
1/3	Groby Road Ahead	U	2	N/A	F		1	8	-	197	2099	315	62.6%
1/4	Groby Road Ahead	U	2	N/A	F		1	8	-	217	2101	315	68.9%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	797	2044:1888	515+532	76.2 : 76.0%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	194	1909	365	53.2%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	182	2093	365	49.9%
4/1	Markfield Road Left	U	1	N/A	B		1	30	-	962	1999	1033	93.1%
4/2	Markfield Road Ahead	U	1	N/A	B		1	30	-	701	1952	1009	69.5%
4/3	Markfield Road Ahead	U	1	N/A	B		1	30	-	766	2106	1088	70.4%
4/4	Markfield Road Ahead	U	1	N/A	B		1	30	-	246	1960	1013	24.3%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	15	-	219	1717	458	47.8%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	15	-	819	1870:1739	428+464	91.9 : 91.9%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	38	-	369	1994	1296	28.5%
6/2	SE Circulatory Right	U	2	N/A	E		1	38	-	639	2045	1329	48.1%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	38	-	426	2034	1322	32.2%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	860	1800	1800	47.8%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	631	1800	1800	35.1%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	602	1800	1800	33.4%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	18	-	395	1954	619	63.8%
8/2	NW Circulatory Right	U	1	N/A	A		1	18	-	210	2051	649	32.3%
8/3	NW Circulatory Right	U	1	N/A	A		1	18	-	218	2050	649	33.6%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	33	-	911	1990	1128	80.8%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	33	-	984	2099	1189	82.7%
9/3	NE Circulatory Right	U	2	N/A	C		1	33	-	246	2009	1138	21.6%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	964	1900	1900	50.7%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	781	1900	1900	41.1%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	1015	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1357	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	352	1800	1800	19.6%
15/2	Ahead	U	N/A	N/A	-		-	-	-	588	1800	1800	32.7%
15/3	Ahead	U	N/A	N/A	-		-	-	-	623	1800	1800	34.6%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1970**	**0**	**0**	**28.4**	**30.2**	**0.0**	**58.6**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1970**	**0**	**0**	**28.4**	**30.2**	**0.0**	**58.6**	**-**	**-**	**-**	**-**
1/1	228	228	-	-	-	1.6	1.8	-	3.4	53.0	3.6	1.8	5.4
1/2	196	196	-	-	-	1.3	0.8	-	2.1	38.8	3.0	0.8	3.9
1/3	197	197	-	-	-	1.3	0.8	-	2.1	39.0	3.1	0.8	3.9
1/4	217	217	-	-	-	1.5	1.1	-	2.5	42.1	3.4	1.1	4.5
2/2+2/1	797	797	1594	0	0	1.0	1.6	-	2.5	11.5	3.1	1.6	4.7
3/1	194	194	194	0	0	0.2	0.6	-	0.7	13.3	1.1	0.6	1.7
3/2	182	182	182	0	0	0.1	0.5	-	0.6	12.5	1.0	0.5	1.5
4/1	962	962	-	-	-	3.6	5.8	-	9.4	35.3	14.7	5.8	20.5
4/2	701	701	-	-	-	2.1	1.1	-	3.3	16.7	8.8	1.1	9.9
4/3	766	766	-	-	-	2.3	1.2	-	3.5	16.6	9.6	1.2	10.8
4/4	246	246	-	-	-	0.5	0.2	-	0.7	10.4	2.3	0.2	2.4
5/1	219	219	-	-	-	1.1	0.5	-	1.6	26.0	3.0	0.5	3.5
5/2+5/3	819	819	-	-	-	4.8	5.0	-	9.7	42.7	6.9	5.0	11.8
6/1	369	369	-	-	-	0.5	0.2	-	0.7	6.9	2.4	0.2	2.6
6/2	639	639	-	-	-	0.7	0.5	-	1.2	6.5	4.0	0.5	4.4
6/3	426	426	-	-	-	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
7/1	860	860	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
7/2	631	631	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/3	602	602	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	395	395	-	-	-	0.9	0.9	-	1.8	16.5	5.8	0.9	6.7
8/2	210	210	-	-	-	0.8	0.2	-	1.0	17.1	2.4	0.2	2.7
8/3	218	218	-	-	-	0.8	0.3	-	1.1	17.7	2.5	0.3	2.7
9/1	911	911	-	-	-	1.5	2.1	-	3.5	14.0	5.4	2.1	7.5

Full Input Data And Results

9/2	984	984	-	-	-	1.6	2.3	-	3.9	14.3	5.7	2.3	8.1
9/3	246	246	-	-	-	0.2	0.1	-	0.4	5.5	0.7	0.1	0.8
10/1	964	964	-	-	-	0.0	0.5	-	0.5	1.9	0.1	0.5	0.6
10/2	781	781	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
11/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1015	1015	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1357	1357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	352	352	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	588	588	-	-	-	0.0	0.2	-	0.2	1.5	0.1	0.2	0.3
15/3	623	623	-	-	-	0.0	0.3	-	0.3	1.5	0.1	0.3	0.3
15/4	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

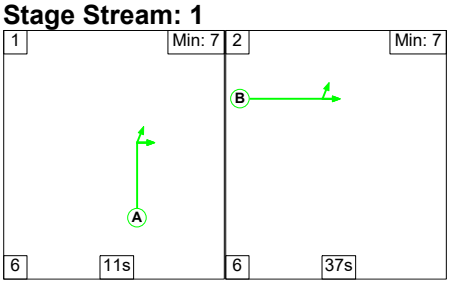
C1	Stream: 1 PRC for Signalled Lanes (%):	-3.5	Total Delay for Signalled Lanes (pcuHr):	20.81	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-2.1	Total Delay for Signalled Lanes (pcuHr):	31.39	Cycle Time (s):	60
	PRC Over All Lanes (%):	-3.5	Total Delay Over All Lanes(pcuHr):	58.57		

Full Input Data And Results

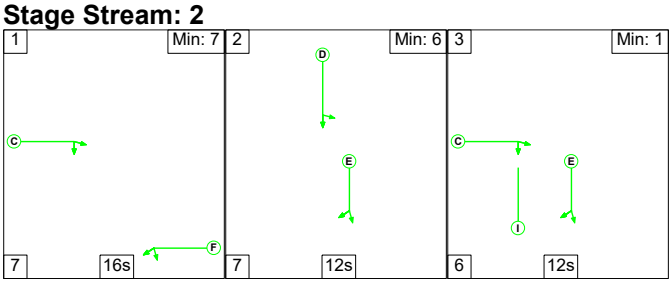
Scenario 8: '2031 Furnessed Future PM' (FG8: '2031 Furnessed Future PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

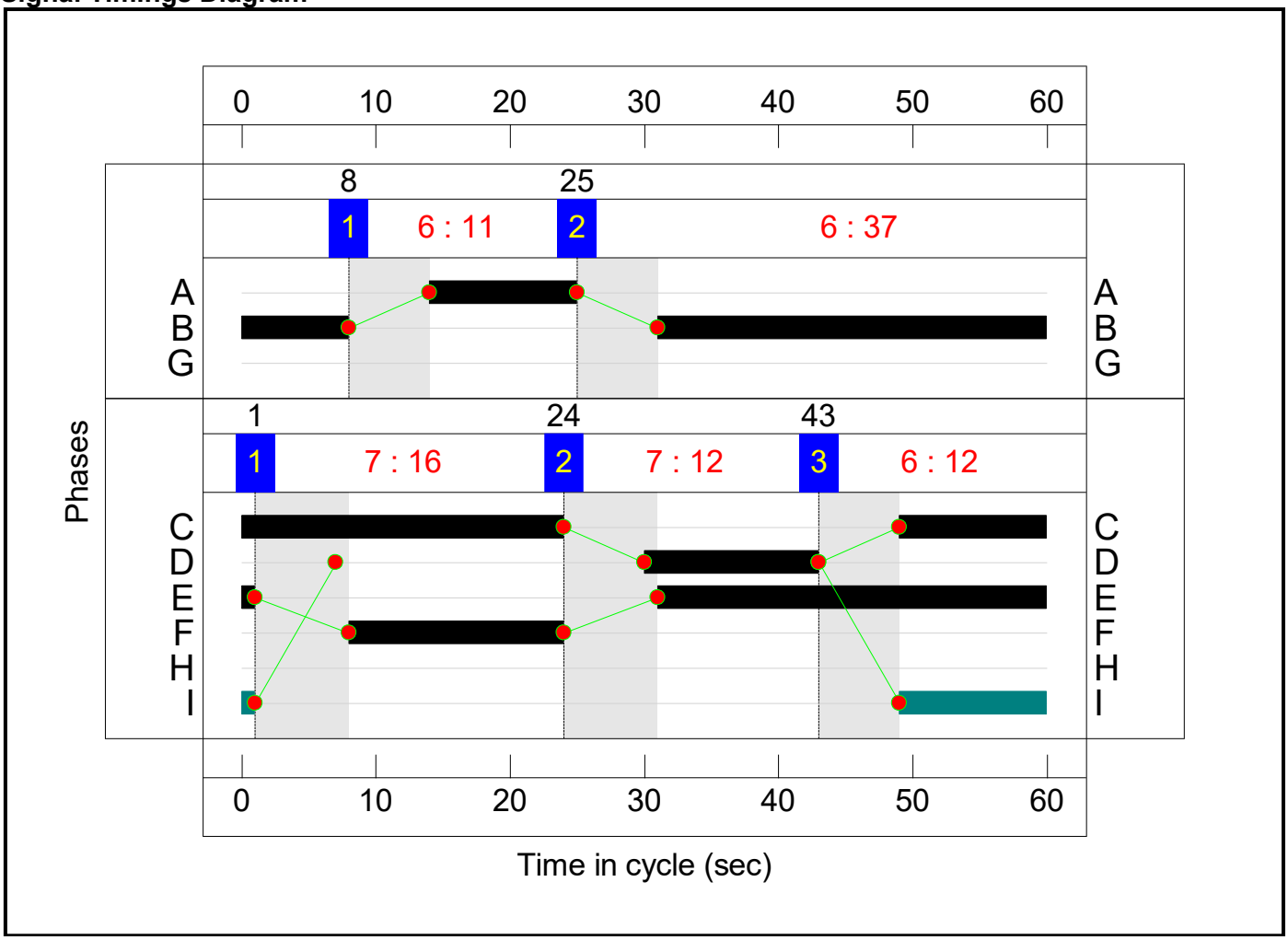
Stage	1	2
Duration	11	37
Change Point	8	25

Stage Stream: 2

Stage	1	2	3
Duration	16	12	12
Change Point	1	24	43

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.2%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.2%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	16	-	404	1908	541	74.7%
1/2	Groby Road Ahead	U	2	N/A	F		1	16	-	289	2102	596	48.5%
1/3	Groby Road Ahead	U	2	N/A	F		1	16	-	294	2099	595	49.4%
1/4	Groby Road Ahead	U	2	N/A	F		1	16	-	225	2101	595	37.8%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	484	2044:1893	509+530	48.0 : 45.2%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	152	1911	425	35.7%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	136	2093	425	32.0%
4/1	Markfield Road Left	U	1	N/A	B		1	37	-	880	1999	1266	69.5%
4/2	Markfield Road Ahead	U	1	N/A	B		1	37	-	409	1952	1236	33.1%
4/3	Markfield Road Ahead	U	1	N/A	B		1	37	-	466	2106	1334	34.9%
4/4	Markfield Road Ahead	U	1	N/A	B		1	37	-	144	1960	1241	11.6%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	13	-	413	1732	404	102.2%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	13	-	707	1870:1739	394+406	86.9 : 90.0%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	30	-	622	1994	1030	59.6%
6/2	SE Circulatory Right	U	2	N/A	E		1	30	-	486	2045	1057	46.0%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	30	-	365	2034	1051	34.7%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	803	1800	1800	44.6%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	662	1800	1800	36.8%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	466	1800	1800	25.9%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	11	-	298	1954	391	76.3%
8/2	NW Circulatory Right	U	1	N/A	A		1	11	-	168	2051	410	41.0%
8/3	NW Circulatory Right	U	1	N/A	A		1	11	-	173	2050	410	42.2%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	35	-	577	1990	1194	48.3%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	35	-	639	2077	1246	51.3%
9/3	NE Circulatory Right	U	2	N/A	C		1	35	-	144	2009	1205	11.9%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	616	1900	1900	32.4%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	391	1900	1900	20.6%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	918	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1178	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	296	1800	1800	16.4%
15/2	Ahead	U	N/A	N/A	-		-	-	-	630	1800	1800	35.0%
15/3	Ahead	U	N/A	N/A	-		-	-	-	659	1800	1800	36.6%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1256**	**0**	**0**	**24.8**	**28.2**	**0.0**	**52.9**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1256**	**0**	**0**	**24.8**	**28.2**	**0.0**	**52.9**	**-**	**-**	**-**	**-**
1/1	404	404	-	-	-	2.2	1.4	-	3.6	32.5	6.1	1.4	7.5
1/2	289	289	-	-	-	1.4	0.5	-	1.9	23.7	3.9	0.5	4.4
1/3	294	294	-	-	-	1.5	0.5	-	2.0	23.9	4.1	0.5	4.6
1/4	225	225	-	-	-	1.1	0.3	-	1.4	22.1	3.0	0.3	3.3
2/2+2/1	484	484	968	0	0	0.3	0.4	-	0.8	5.7	1.1	0.4	1.5
3/1	152	152	152	0	0	0.1	0.3	-	0.4	8.7	0.6	0.3	0.9
3/2	136	136	136	0	0	0.1	0.2	-	0.3	8.2	0.5	0.2	0.8
4/1	880	880	-	-	-	1.8	1.1	-	2.9	11.8	9.5	1.1	10.7
4/2	409	409	-	-	-	0.6	0.2	-	0.8	7.3	3.1	0.2	3.3
4/3	466	466	-	-	-	0.7	0.3	-	0.9	7.3	3.6	0.3	3.9
4/4	144	144	-	-	-	0.2	0.1	-	0.2	6.0	0.9	0.1	1.0
5/1	413	404	-	-	-	2.8	12.6	-	15.5	134.7	7.0	12.6	19.6
5/2+5/3	707	707	-	-	-	4.3	3.6	-	7.9	40.0	5.9	3.6	9.4
6/1	614	614	-	-	-	0.8	0.7	-	1.5	8.9	2.8	0.7	3.6
6/2	486	486	-	-	-	0.3	0.4	-	0.7	5.1	0.8	0.4	1.2
6/3	365	365	-	-	-	0.0	0.3	-	0.3	2.6	0.0	0.3	0.3
7/1	803	803	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
7/2	662	662	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/3	466	466	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
8/1	298	298	-	-	-	2.2	1.6	-	3.8	45.7	3.5	1.6	5.0
8/2	168	168	-	-	-	0.9	0.3	-	1.3	27.3	2.5	0.3	2.8
8/3	173	173	-	-	-	1.0	0.4	-	1.3	27.8	2.6	0.4	2.9
9/1	577	577	-	-	-	1.1	0.5	-	1.6	9.7	5.6	0.5	6.1

Full Input Data And Results

9/2	639	639	-	-	-	1.3	0.5	-	1.8	10.0	6.5	0.5	7.0
9/3	144	144	-	-	-	0.2	0.1	-	0.3	7.3	1.4	0.1	1.5
10/1	615	615	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
10/2	391	391	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/1	867	867	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	918	918	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1178	1178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	296	296	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	630	630	-	-	-	0.0	0.3	-	0.3	1.6	0.2	0.3	0.4
15/3	659	659	-	-	-	0.0	0.3	-	0.3	1.6	0.2	0.3	0.5
15/4	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

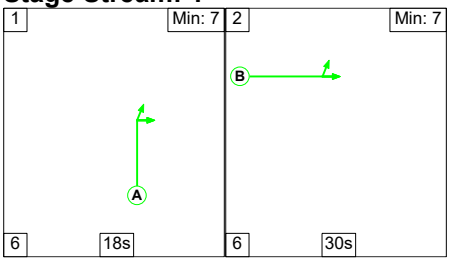
C1	Stream: 1 PRC for Signalled Lanes (%):	18.0	Total Delay for Signalled Lanes (pcuHr):	11.29	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-13.5	Total Delay for Signalled Lanes (pcuHr):	38.30	Cycle Time (s):	60
	PRC Over All Lanes (%):	-13.5	Total Delay Over All Lanes(pcuHr):	52.95		

Full Input Data And Results

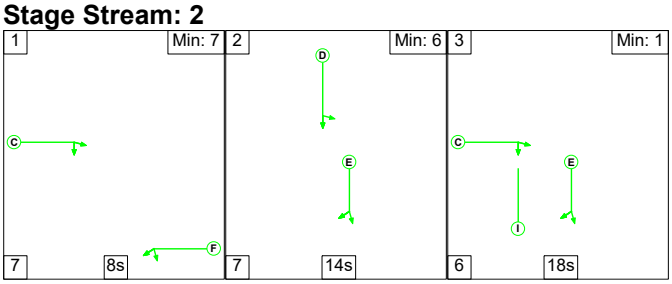
Scenario 9: '2031 Furnessed Future + Dev AM' (FG9: '2031 Furnessed Future + Dev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

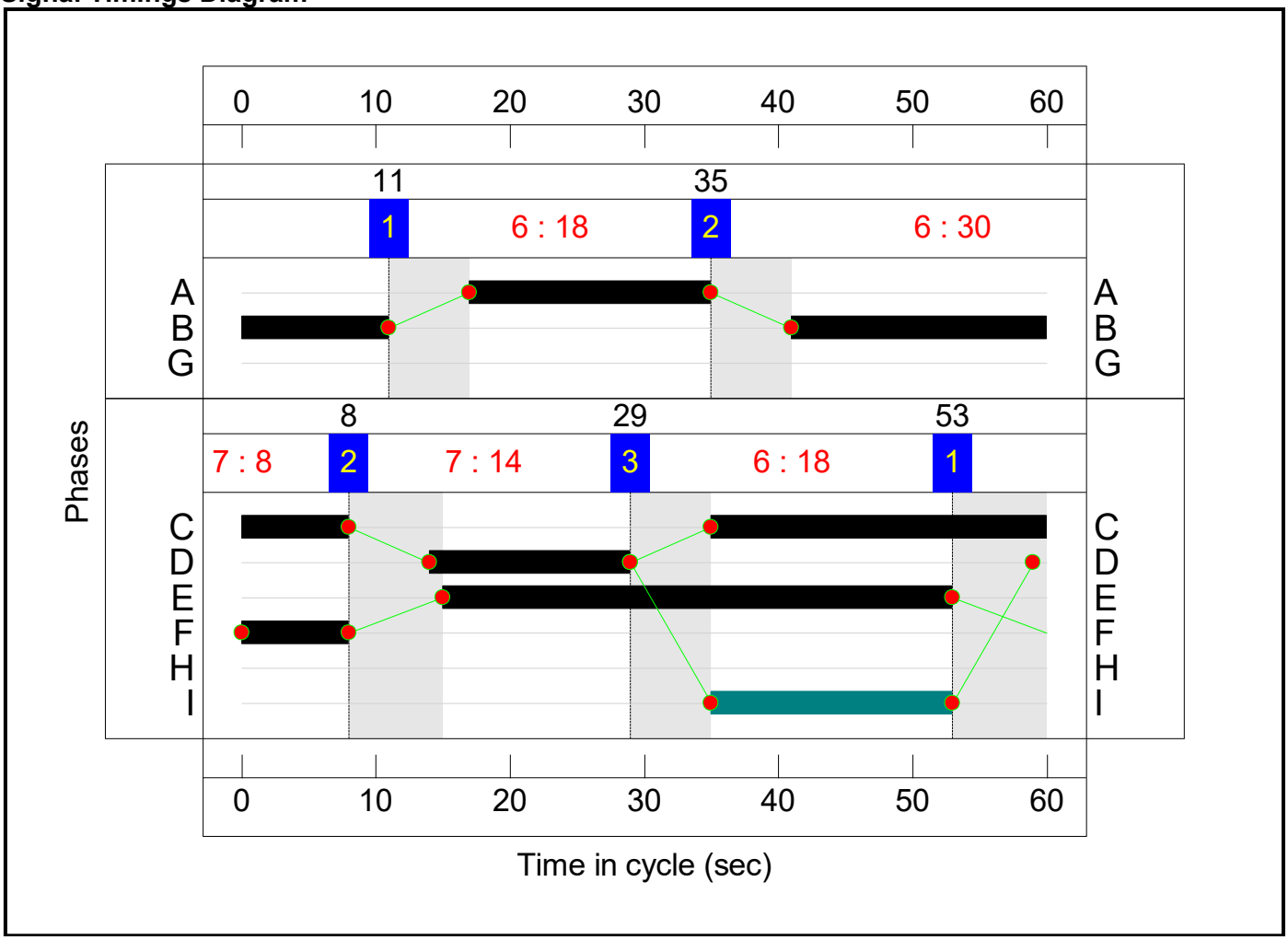
Stage	1	2
Duration	18	30
Change Point	11	35

Stage Stream: 2

Stage	1	2	3
Duration	8	14	18
Change Point	53	8	29

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.6%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.6%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	8	-	228	1918	288	79.2%
1/2	Groby Road Ahead	U	2	N/A	F		1	8	-	195	2102	315	61.8%
1/3	Groby Road Ahead	U	2	N/A	F		1	8	-	197	2099	315	62.6%
1/4	Groby Road Ahead	U	2	N/A	F		1	8	-	217	2101	315	68.9%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	831	2044:1889	515+531	81.6 : 77.4%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	196	1910	353	55.5%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	177	2093	353	50.1%
4/1	Markfield Road Left	U	1	N/A	B		1	30	-	967	1999	1033	93.6%
4/2	Markfield Road Ahead	U	1	N/A	B		1	30	-	711	1952	1009	70.5%
4/3	Markfield Road Ahead	U	1	N/A	B		1	30	-	775	2106	1088	71.2%
4/4	Markfield Road Ahead	U	1	N/A	B		1	30	-	249	1960	1013	24.6%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	15	-	224	1717	458	48.9%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	15	-	821	1870:1739	426+464	92.3 : 92.3%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	38	-	371	1994	1296	28.6%
6/2	SE Circulatory Right	U	2	N/A	E		1	38	-	642	2045	1329	48.3%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	38	-	428	2034	1322	32.4%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	867	1800	1800	48.2%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	625	1800	1800	34.7%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	637	1800	1800	35.4%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	18	-	430	1954	619	69.5%
8/2	NW Circulatory Right	U	1	N/A	A		1	18	-	208	2051	649	32.0%
8/3	NW Circulatory Right	U	1	N/A	A		1	18	-	217	2050	649	33.4%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	33	-	919	1990	1128	81.5%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	33	-	992	2099	1189	83.4%
9/3	NE Circulatory Right	U	2	N/A	C		1	33	-	249	2009	1138	21.9%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	972	1900	1900	51.2%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	792	1900	1900	41.7%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	494	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	486	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	1022	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	625	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1397	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	355	1800	1800	19.7%
15/2	Ahead	U	N/A	N/A	-		-	-	-	587	1800	1800	32.6%
15/3	Ahead	U	N/A	N/A	-		-	-	-	625	1800	1800	34.7%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**2035**	**0**	**0**	**28.9**	**31.7**	**0.0**	**60.6**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**2035**	**0**	**0**	**28.9**	**31.7**	**0.0**	**60.6**	**-**	**-**	**-**	**-**
1/1	228	228	-	-	-	1.6	1.8	-	3.4	53.0	3.6	1.8	5.4
1/2	195	195	-	-	-	1.3	0.8	-	2.1	38.7	3.0	0.8	3.8
1/3	197	197	-	-	-	1.3	0.8	-	2.1	39.0	3.1	0.8	3.9
1/4	217	217	-	-	-	1.5	1.1	-	2.5	42.1	3.4	1.1	4.5
2/2+2/1	831	831	1662	0	0	1.1	1.9	-	3.0	12.9	5.6	1.9	7.5
3/1	196	196	196	0	0	0.2	0.6	-	0.8	14.3	1.1	0.6	1.8
3/2	177	177	177	0	0	0.1	0.5	-	0.6	12.8	1.0	0.5	1.5
4/1	967	967	-	-	-	3.6	6.2	-	9.8	36.6	15.0	6.2	21.2
4/2	711	711	-	-	-	2.2	1.2	-	3.4	17.0	8.9	1.2	10.1
4/3	775	775	-	-	-	2.4	1.2	-	3.6	16.8	9.7	1.2	10.9
4/4	249	249	-	-	-	0.6	0.2	-	0.7	10.4	2.3	0.2	2.4
5/1	224	224	-	-	-	1.2	0.5	-	1.6	26.2	3.1	0.5	3.6
5/2+5/3	821	821	-	-	-	4.8	5.2	-	10.0	43.7	6.9	5.2	12.1
6/1	371	371	-	-	-	0.5	0.2	-	0.7	6.9	2.4	0.2	2.6
6/2	642	642	-	-	-	0.7	0.5	-	1.2	6.6	4.0	0.5	4.5
6/3	428	428	-	-	-	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
7/1	867	867	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
7/2	625	625	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/3	637	637	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	430	430	-	-	-	1.1	1.1	-	2.2	18.8	6.5	1.1	7.7
8/2	208	208	-	-	-	0.7	0.2	-	1.0	16.9	2.4	0.2	2.7
8/3	217	217	-	-	-	0.8	0.3	-	1.1	17.6	2.5	0.3	2.7
9/1	919	919	-	-	-	1.5	2.2	-	3.6	14.2	5.4	2.2	7.6

Full Input Data And Results

9/2	992	992	-	-	-	1.6	2.5	-	4.0	14.6	5.7	2.5	8.2
9/3	249	249	-	-	-	0.2	0.1	-	0.4	5.5	0.7	0.1	0.8
10/1	972	972	-	-	-	0.0	0.5	-	0.5	2.0	0.1	0.5	0.6
10/2	792	792	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
11/1	494	494	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	486	486	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1022	1022	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	625	625	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1397	1397	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	355	355	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	587	587	-	-	-	0.0	0.2	-	0.2	1.5	0.1	0.2	0.3
15/3	625	625	-	-	-	0.0	0.3	-	0.3	1.5	0.1	0.3	0.3
15/4	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

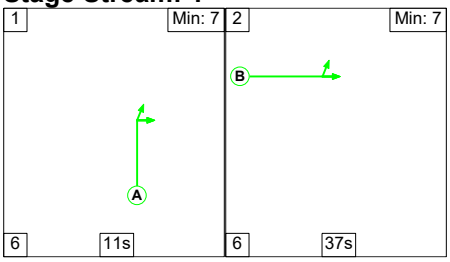
C1	Stream: 1 PRC for Signalled Lanes (%):	-4.0	Total Delay for Signalled Lanes (pcuHr):	21.81	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-2.5	Total Delay for Signalled Lanes (pcuHr):	31.92	Cycle Time (s):	60
	PRC Over All Lanes (%):	-4.0	Total Delay Over All Lanes(pcuHr):	60.64		

Full Input Data And Results

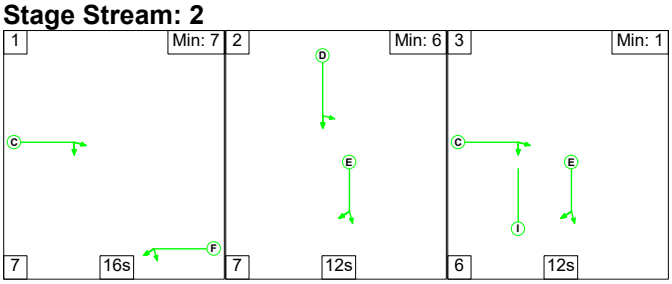
Scenario 10: '2031 Furnessed Future + Dev PM' (FG10: '2031 Furnessed Future + Dev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

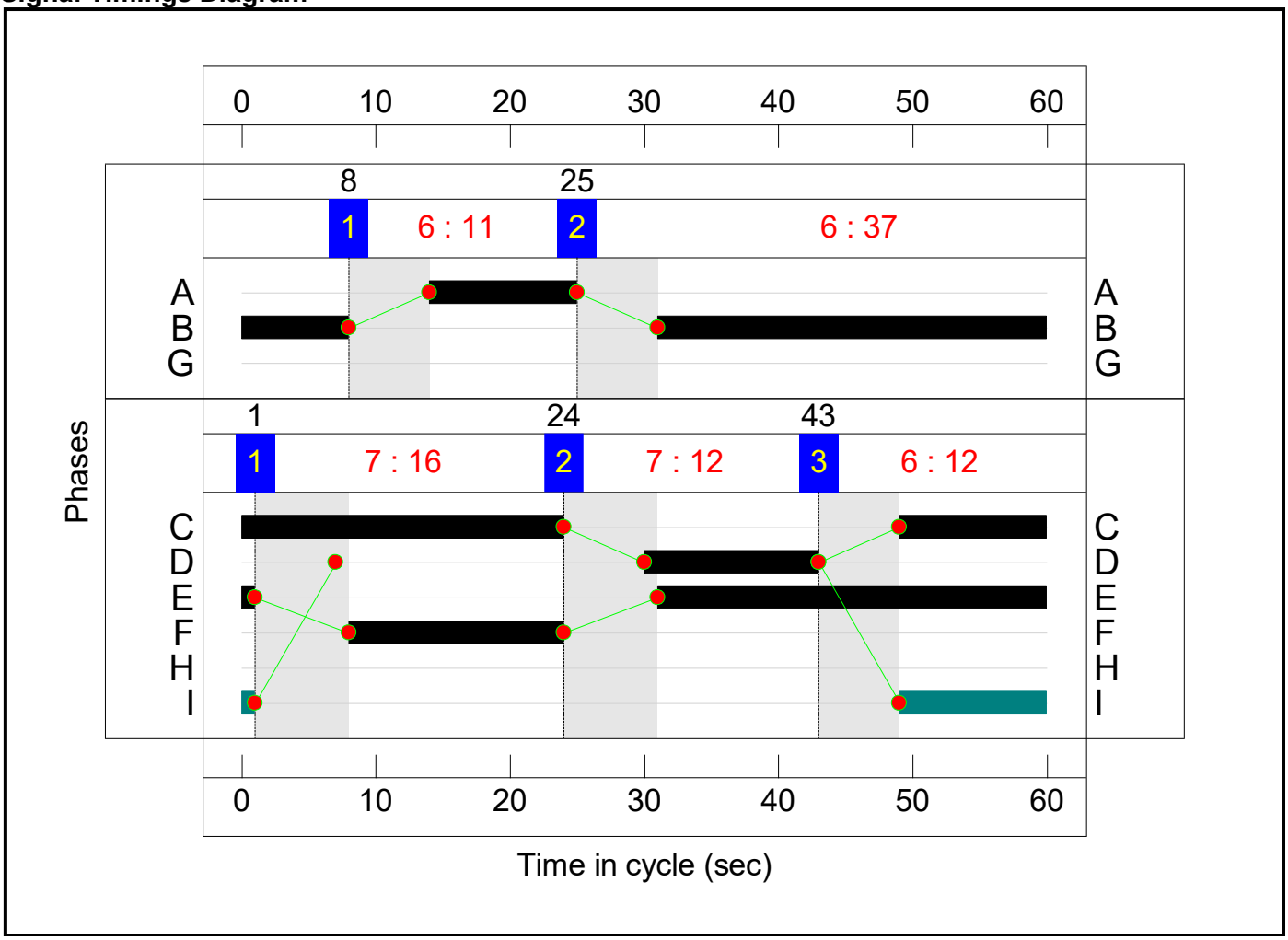
Stage	1	2
Duration	11	37
Change Point	8	25

Stage Stream: 2

Stage	1	2	3
Duration	16	12	12
Change Point	1	24	43

Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.5%**
A46/ Groby Road/ Markfield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.5%**
1/1	Groby Road Left Ahead	U	2	N/A	F		1	16	-	436	1905	540	80.8%
1/2	Groby Road Ahead	U	2	N/A	F		1	16	-	285	2102	596	47.9%
1/3	Groby Road Ahead	U	2	N/A	F		1	16	-	291	2099	595	48.9%
1/4	Groby Road Ahead	U	2	N/A	F		1	16	-	225	2101	595	37.8%
2/2+2/1	Leicester Road Left Left2	O	N/A	N/A	-		-	-	-	505	2044:1893	508+530	51.9 : 45.5%
3/1	A46 (South) Ahead Left	O	N/A	N/A	-		-	-	-	160	1909	419	38.2%
3/2	A46 (South) Ahead	O	N/A	N/A	-		-	-	-	139	2093	419	33.2%
4/1	Markfield Road Left	U	1	N/A	B		1	37	-	881	1999	1266	69.6%
4/2	Markfield Road Ahead	U	1	N/A	B		1	37	-	415	1952	1236	33.6%
4/3	Markfield Road Ahead	U	1	N/A	B		1	37	-	467	2106	1334	35.0%
4/4	Markfield Road Ahead	U	1	N/A	B		1	37	-	142	1960	1241	11.4%
5/1	A46 (North) Ahead Left	U	2	N/A	D		1	13	-	410	1732	404	101.5%
5/2+5/3	A46 (North) Ahead	U	2	N/A	D		1	13	-	711	1870:1739	401+406	86.0 : 90.2%
6/1	SE Circulatory Ahead	U	2	N/A	E		1	30	-	621	1994	1030	59.8%
6/2	SE Circulatory Right	U	2	N/A	E		1	30	-	487	2045	1057	46.1%

Full Input Data And Results

6/3	SE Circulatory Right	U	2	N/A	E		1	30	-	366	2034	1051	34.8%
7/1	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	804	1800	1800	44.7%
7/2	SW Circulatory Ahead	U	N/A	N/A	-		-	-	-	658	1800	1800	36.6%
7/3	SW Circulatory Right	U	N/A	N/A	-		-	-	-	488	1800	1800	27.1%
8/1	NW Circulatory Ahead	U	1	N/A	A		1	11	-	322	1954	391	82.4%
8/2	NW Circulatory Right	U	1	N/A	A		1	11	-	167	2051	410	40.7%
8/3	NW Circulatory Right	U	1	N/A	A		1	11	-	171	2050	410	41.7%
9/1	NE Circulatory Ahead	U	2	N/A	C		1	35	-	582	1990	1194	48.7%
9/2	NE Circulatory Right Ahead	U	2	N/A	C		1	35	-	638	2076	1246	51.2%
9/3	NE Circulatory Right	U	2	N/A	C		1	35	-	142	2009	1205	11.8%
10/1	Groby Road - Exit	U	N/A	N/A	-		-	-	-	621	1900	1900	32.7%
10/2	Groby Road - Exit	U	N/A	N/A	-		-	-	-	388	1900	1900	20.4%
11/1	Leicester Road - Exit	U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
12/1	A46 (South) - Exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
13/1	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	931	Inf	Inf	0.0%
13/2	Markfield Road - Exit	U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
14/1	A46 (North) - Exit	U	N/A	N/A	-		-	-	-	1203	Inf	Inf	0.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	291	1800	1800	16.2%
15/2	Ahead	U	N/A	N/A	-		-	-	-	629	1800	1800	34.9%
15/3	Ahead	U	N/A	N/A	-		-	-	-	657	1800	1800	36.5%

Full Input Data And Results

15/4	Ahead	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A46/ Groby Road/ Markfield Road	**-**	**-**	**1309**	**0**	**0**	**25.1**	**28.5**	**0.0**	**53.5**	**-**	**-**	**-**	**-**
A46/ Groby Road/ Markfield Road	**-**	**-**	**1309**	**0**	**0**	**25.1**	**28.5**	**0.0**	**53.5**	**-**	**-**	**-**	**-**
1/1	436	436	-	-	-	2.4	2.0	-	4.4	36.7	6.7	2.0	8.7
1/2	285	285	-	-	-	1.4	0.5	-	1.9	23.6	3.9	0.5	4.3
1/3	291	291	-	-	-	1.4	0.5	-	1.9	23.8	4.0	0.5	4.4
1/4	225	225	-	-	-	1.1	0.3	-	1.4	22.1	3.0	0.3	3.3
2/2+2/1	505	505	1010	0	0	0.4	0.5	-	0.8	5.9	1.2	0.5	1.7
3/1	160	160	160	0	0	0.1	0.3	-	0.4	9.2	0.7	0.3	1.0
3/2	139	139	139	0	0	0.1	0.2	-	0.3	8.4	0.6	0.2	0.8
4/1	881	881	-	-	-	1.8	1.1	-	2.9	11.9	9.5	1.1	10.7
4/2	415	415	-	-	-	0.6	0.3	-	0.8	7.3	3.1	0.3	3.4
4/3	467	467	-	-	-	0.7	0.3	-	0.9	7.3	3.6	0.3	3.9
4/4	142	142	-	-	-	0.2	0.1	-	0.2	6.0	0.9	0.1	1.0
5/1	410	404	-	-	-	2.8	11.7	-	14.4	126.9	6.9	11.7	18.6
5/2+5/3	711	711	-	-	-	4.3	3.5	-	7.8	39.5	5.9	3.5	9.3
6/1	616	616	-	-	-	0.8	0.7	-	1.5	8.9	2.8	0.7	3.6
6/2	487	487	-	-	-	0.3	0.4	-	0.7	5.1	0.8	0.4	1.2
6/3	366	366	-	-	-	0.0	0.3	-	0.3	2.6	0.0	0.3	0.3
7/1	804	804	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
7/2	658	658	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
7/3	488	488	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
8/1	322	322	-	-	-	2.4	2.2	-	4.6	51.2	3.9	2.2	6.1
8/2	167	167	-	-	-	0.9	0.3	-	1.3	27.1	2.5	0.3	2.8
8/3	171	171	-	-	-	1.0	0.4	-	1.3	27.7	2.5	0.4	2.9
9/1	582	582	-	-	-	1.1	0.5	-	1.6	9.8	5.7	0.5	6.1

Full Input Data And Results

9/2	638	638	-	-	-	1.2	0.5	-	1.8	10.0	6.4	0.5	7.0
9/3	142	142	-	-	-	0.2	0.1	-	0.3	7.3	1.4	0.1	1.5
10/1	620	620	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
10/2	388	388	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/1	904	904	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	931	931	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	1203	1203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	291	291	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/2	629	629	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/3	657	657	-	-	-	0.0	0.3	-	0.3	1.6	0.2	0.3	0.5
15/4	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	9.2	Total Delay for Signalled Lanes (pcuHr):	12.08	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-12.7	Total Delay for Signalled Lanes (pcuHr):	37.98	Cycle Time (s):	60
	PRC Over All Lanes (%):	-12.7	Total Delay Over All Lanes(pcuHr):	53.54		